

CORNWELL TOOLS



Tips on Using This E-Catalog:

EACH SECTION/SUB-SECTION ON THE CONTENTS PAGE ARE CLICKABLE ITEMS.
TO SKIP TO ONE OF THESE SECTIONS OR SUB-SECTIONS,
ROLL YOUR MOUSE OVER THE DESIRED ITEM AND CLICK.

BOOKMARKS

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To show bookmarks, go to Window - Show Bookmarks.

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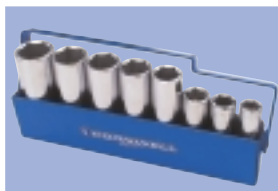
The Catalog is composed of **EIGHT (8) MAJOR SECTIONS** and **Five (5) Sub-sections**, plus the Major Index and Warnings. **FOR MAJOR ALPHABETICAL INDEX, REFER TO PAGES 287-294**



Master Sets & Tool Boxes

.....	3-20
Tool Boxes	6-14
Tool Box Accessories	15-20
Tool Box Parts	20

DRIVE TOOLS (SAE & Metric) 21-64



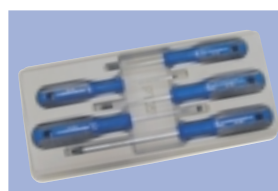
Sockets, Handles, Attachments, & All Sets (SAE & Metric)	
1/4" to 1" Drive	22-64

WRENCHES (SAE & Metric) 65-86



Wrenches & Sets	66-82
Torque Wrenches	82-83
Striking Tools	84-86
Punches, Chisels	84-85
Pry Bars	86

COMMON SERVICE..... 87-146



Screwdrivers/Bits	88-101
Hammers/Pliers	101-122
Cutting & Filing	122-126
Creepers	127-128
Measuring Tools	128-131
Taps, Dies/Extractors	131-139
Lighting/Inspection	139-146

DIAGNOSTIC & UNDERHOOD . 147-187



Diagnostic Testers	148-158
Timing & Tach	159
Circuit Testers	159-162
Ignition/Engine/Plug	162-165
Underhood	165-187
Battery Service	185-187

AIR CONDITIONING 188-206



Refrigerant Units	189-190
Service Tools	190-199
Cooling System	199-206

UNDERCARRIAGE & WHEEL .. 207-237



Oil & Lube	208-212
Drive Line	212-215
Alignment/Suspension	215-218
Pullers	218-221
Tire & Wheel	221-229
Brake Service	229-235
Tubing & Exhaust	235-237

POWER TOOLS..... 238-291



Air Tools/Accessories ...	239-261
Air Compressors	261
Cordless Tools	262-263
Electrical Tools	263-265
Drill Bits	265-269
Cutters/Hole Saws/Burs	269-272
Body Service	273-291
Painting	289-291

SHOP EQUIPMENT 292-308



Lifting Equipment	293-295
Sandblasting	296
Parts Washing	297
Safety Equipment	298-302
Bench Tools & Accessories	302-303
Welding & Soldering	303-306
Misc. Equipment	307-308
Late New, Major Index, & Warnings	309-320

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PRODUCT

Cornwell reserves the right to discontinue or make changes in design and construction, of any and all products listed in this catalog without incurring any obligation to make such changes in products previously sold or transferred.

SAFETY

Cornwell encourages safety...Warnings are used throughout this catalog as a convenience to our customers only. For specific tool use precautions, refer to the manufactures's instrucionts when provided.

WARNING

Cornwell can not be responsible for damage or injury caused by tools which have been badly worn, abused, improperly repaired, improperly used or altered in any way.

Information contained herein supersedes that of any previous Cornwell Quality Tools Catalog.

Cornwell® has for many years been one of the leaders in manufacturing highly accurate and durable hand tools. When you want wide selection, greater versatility, and hand tools that are known for toughness and durability...specify

CORNWELL!

Master Sets
& Tool Boxes

Drive Tools
(SAE & Metric)

Wrenches
& Striking Tools

Common
Service Tools

Diagnostic &
Underhood

Air Conditioning
& Cooling

Undercarriage
& Wheel

Power Tools

Shop
Equipment

Major Index

CHROME SOCKETS AND UNIVERSALS

- **"TDS - TORQUE DISPERSING SYSTEM"** opening design spreads stress evenly and reduces fastener rounding.
- Selection: Available in regular and deep lengths, 6 and 12 point, fractional and metric sizes.
- High quality alloy steel.
- Controlled heat treatment for strength.
- Cold broached for accuracy and tolerances.
- Highly polished and nickel chrome plated for long life.



POWER IMPACT SOCKETS AND UNIVERSALS

- Selection available in regular and deep lengths, 6 and 12 point, fractional and metric sizes.
- Universal sockets feature a unique ball and spring swivel design that allows a 30° socket angle with 360° rotation for easy fastener gripping.
- Extra tough special alloy steel construction and special heat treatment for longer life.
- Black oxide finish to resist rust.
- **"TDS - TORQUE DISPERSING SYSTEM"** opening design spreads stress evenly and reduces fastener rounding.



HANDLES AND ATTACHMENTS

- Selection: Chrome and power impact adapters, extensions, flex handles, universal joints, spin handles, ratchet spinners and nut drivers.
- Flex handles feature a swivel flex square head that will rotate through 180° arc to clear obstructions.



RATCHETS

- Selection: Complete styles of extra long and regular handles, in fixed and flex head designs.
- Some 1/4", 3/8" & 1/2" units available with comfortable non-slip screw driver type plastic handles.
- Thirty (30) tooth design allows new "bite" to be made with only 12 degree handle movement.
- Three (3) moving parts for maximum efficiency and minimum wear.
- Form fitted handles reduce fatigue and permit prolonged use.



WRENCHES

- Selection: Long and short handle, 6 and 12 point openings, fractional and metric sizes, chrome and black oxide finish.
- V-throat design on open end head wrenches allows four (4) sided gripping on the fastener.
- Slim, well balanced style for ease of use.
- **"TDS - TORQUE DISPERSING SYSTEM"** opening design spreads stress evenly and reduces fastener rounding.



ANGLE WRENCHES

- Cornwell pioneered and engineered the original angle wrench design.
- For many years these wrenches have been regarded by mechanics and industry as the finest.
- 15° and 60° head angles on the handle allow maximum nut turning in limited access places.
- Design gives you four working positions in small swing areas.



PUNCHES AND CHISELS

- Cornwell punches and chisels have been recognized for years as superior.
- Punches are designed to withstand the shock of driving hardened pins.
- Chisels are made to hold a fine cutting edge.
- Made from the finest blend of alloy steel.
- Hammer forged and heat treated for long life.



CARBON SCRAPERS

- Handles are made from slip resistant polycarbonate plastic, especially contoured to fit comfortably in the hand during prolonged use.
- Hammer forged and heat treated for long life.
- Black oxide finish resists rust.
- Blades have precision ground edges which can be sharpened again and again.



XX-AT334S**AUTO TECH TOOL SET**

Cornwell has designed this for the advanced new mechanic who is looking for a basic mix of hand tools. This suggested tool set of approximately 277 hand tools comes with a top quality Top Chest and Roller Cabinet.

AN-43001	Wire Filled Maintenance Brush	TSD-15	Cornwell TamperTorx® Screwdriver #15	VG-10R	10" Straight Jaw Locking Pliers
BWFP-4S	4 pc. Double. Fl. Nut. Wrench Set	TSMI-220SF	20 pc. Metric Combination Socket Set, 6 pt.	VG-11SP	11" Locking C-clamp with Swivel Pads
CCL-317	Cornwell 7" Long Nose Plier	TSU-227ST	7 pc. 3/8" Universal Socket Set 6 pt./Tray	VM-SS7000	3 pc. Scraper Set
CCL-337	Cornwell 7" Cutting Plier	UL-B2	Mirror 1" x 2"	WB1-5S	5 pc. Box Wrench Set, 12 pt.
CCL-420	Cornwell 9-1/2" Tongue and Groove Plier	VA-21729	40 pc. Tap and Hex Die Set	WCM2-10ST	10 pc. Full Polish Long Metric Combination Wrench Set, 6 pt.
CCL-437	Cornwell 7" Cutting Plier	VA-21749	40 pc. Metric Tap and Hex Die Set	WCP1-7ST	7 pc. Full Polish Combination Wrench Set, 3/8"-3/4"
CCL-460	Cornwell 16" Tongue and Groove Plier	VB-S48	48 oz. Blacksmith Hammer	WN-GTL-01	Great Test Leads
CCL-516	Cornwell 6" Slip Joint Plier	VB-TC016	16 oz. Ball Pein Hammer	ZZ-CSD8S	Cornwell 8 pc. Screwdriver Set
CCL-548	Cornwell 8" Slip Joint Plier	VB-TC120	20 oz. Ball Pein Hammer	ZZ-F6S	6 pc. File Set
CCL-558	8" Hose Plier	VB-TC308	8 oz. Ball Pein Hammer		
CCL-3017	7-1/2" Long Nose Plier	VG-7R	7" Straight Jaw Locking Pliers		
CED-100	Cornwell Digital Multimeter				
CL-808	8" Chrome Adjustable Wrench				
CL-812	12" Chrome Adjustable Wrench				
CLS-53700	Cornwell Oil Filter Wrench				
CS-10	Scraper				
CTB-2900BL	29" Cabinet, Blue				
CTB-2910BL	29" Chest, Blue				
CTW-1002F	3/8" Dr. 10-100 ft.-lb. Torque Wrench				
E-0-5ST	5 pc. 1/4" Dr. Extension Set				
E-2-6	3/8" x 6" Extension				
E-2-12	3/8" x 12" Extension				
EK-20811	Fold Up Hex Key Set				
EK-21171	Metric Fold Up Hex Key Set				
EK-22571	7 pc. Torx® Fold Up Hex Key Set				
HM-TU30	Super Compression Tester				
IR-C232A	Cornwell 1/2" Impact Wrench				
JRH-3ST	3 pc. 3/8" Handle Ratchet Set				
KCP-10ST	10 pc. Punch and Chisel Set				
KD-21-360	Challenger Hacksaw				
MI-S2D036	2 "D" Cell Mag-Lite®, Dark Red				
NS-136TH	Fender Cover				
OF-1034	Brake Adjusting Tool				
OF-1040	Brake Spring Plier				
OF-1044	Brake Shoe Retaining Spring Tool				
OF-7332	5 pc. Screw Extractor Set				
PB-5	16" Ladyfoot Pry Bar				
PB-24	24" Pinch Bar				
PL-17-509	10-50 PSI Tire Gauge				
RB-FG13	Master Go-No-Go Gauge				
RS-20	3/8" Ratchet Spinner				
SE-65782	1/2" x 12 ft. Metric/English Tru-Lok Tape				
STLN-3PFS	3 pc. Lug Nut Set				
STM-2213S	13 pc. 3/8" Metric Socket Set, 6 pt.				
TE-27	H.D. 6 & 12V Circuit Tester				
TS-021S	21 pc. 1/4" Tool Set				
TS-219S	19 pc. 3/8" Tool Set				

**WARNING!**

Storage unit can tip during loaded conditions.
Do not open more than one drawer at a time.
Do not use drawer as a step ladder.
Close lid and lock all drawers and doors before moving.
Lock all casters to prevent rolling.



XX-MS826S**MASTER SUPREME TOOL SET**

Cornwell has designed this set, our largest selection of approximately 730 quality hand tools, for the professional mechanic. This suggested tool set comes with a Cornwell 60" Tool Box Combination Set that includes a top quality Top Chest, Side Cabinet, Roller Cabinet and Locker - all featuring hand-crafted quality construction throughout. If you are looking for a real professional mechanic's showcase, this is the set for you!

A-32	1/2"-3/8" Adaptor	CWP-0808	1/4" x 1/4" Full Polish	LS-94102	Low Profile Plastic
AN-43001	Wire Filled Maintenance		Combination Wrench	MP-M3300	Creeper (Blue)
	Brush		12 pt.	MX-CMG-032010	Crimper/Cutter Tool
AN-50079	Shoe Handle Carbon	CWP-1010	5/16" x 5/16" Full Polish		Cornwell Mechanix
	Scratch Brush		Combination Wrench		Gloves, Blue (Large)
AP-32	1/2"-3/8" Power		12 pt.	MX-CMG-05602	Cornwell Mechanix
	Adaptor	CWP-2626	13/16" x 13/16" Full		Apron
ATC-53226	10 pc. Screw Extractor		Polish Combination	NM-70025A	13 Watt 25' Drop Light
	Set		Wrench 12 pt.	NS-136TH	Fender Cover
ATC-53227	25 pc. Screw Extractor	CWP-2828	7/8" x 7/8" Full Polish	OW-525	Flange Puller Kit
	Set		Combination Wrench	OW-C7947	Slide Hammer Puller
AW-2626	13/16" x 13/16" Angle		12 pt.		Set
	Wr.	CWP-3030	15/16" x 15/16" Full	PB-4ST	4 pc. LadyFoot/Pinch
AW-2828	7/8" x 7/8" Angle		Polish Combination		Bar Set
	Wrench		Wrench 12 pt.	PBH-4ST	4 pc. Handled Pry Bar
AW-3030	15/16" x 15/16" Angle	CWP-3232	1" x 1" Full Polish		Set
	Wr.		Combination Wrench	PL-50-515	6 oz. Pistol Oiler
AW-3232	1" x 1" Angle Wrench		12 pt.	PL-50-516	6 oz. Pistol Oiler
AW-3434	1-1/16" x 1-1/16" Angle	CWP-3434	1-1/16" x 1-1/16"	PR-232-BL	Cover/IR-232 (Blue)
	Wr.		Combination Wrench,	PR-JB-13	Cover/IR-212 Type
AW-3636	1-1/8" x 1-1/8" Angle		Full Polish	PSI-DT-150-34CV	Digital Pressure Gauge
	Wr.	CWP-3636	1-1/8" x 1-1/8" Full	PU-168	Tubing Tool Set
AW-3838	1-3/16" x 1-3/16" Angle		Polish Combination	RB-FG26	Master Offset Feeler
	Wr.		Wrench 12 pt.		Gauge
AW-4040	1-1/4" x 1-1/4" Angle	CWP-4040	1-1/4" x 1-1/4"	RS-20	3/8" Ratchet Spinner
	Wr.		Combination Wrench.	SH-77289	32 oz. Rubber Mallet
BWFMP-6ST	6 pc. Met. Double.		Full Polish	SH-77764	1/2" x 8" Brass Pin
	Flare Nut Wrench Set	E-0-5ST	5 pc. 1/4" Dr. Extension		Punch
BWFP-4S	4 pc. Double. Fl. Nut.		Set	SKA-309RMS	9 pc 1/2" Metric Hex Bit
	Wrench Set	E-2-6ST	6 pc. 3/8" Dr. Extension		Set
CBS-TX623S	6 pc. 3/8" Torx® Bit		Set	SR-50	1/2" Dr. Ratchet
	Socket Set	E-2-24	3/8" x 24" Extension		Chrome
CCL-307	Cornwell Parrot Nose	E-2-30	3/8" x 30" Extension	ST-0210LS	10 pc. 1/4" Deep
	Plier	E-3-4PFS	4 pc. 1/2" Dr. Extension		Socket Set 6 pt.
CFW-12PFS	12 pc. Crowfoot		Set	ST-0210S	10 pc. 1/4" Socket Set
	Wrench Set	EC-S541	4-in-1 Battery Post		6 pt.
CLS-20750	Remote Starter Switch		Cleaner	ST-3211LS	11 pc. 1/2" Deep
CLS-53500	Oil Filter Wrench	EK-10022	22 pc SAE & Metric		Socket Set 6 pt.
CMP-4MPNOST	4 pc. Mini Pick Set,		Hex Key Set	ST-3215S	15 pc. 1/2" Socket Set
	Orange	FI-84	Digital Tach/Advance		6 pt.
CS-5ST	5 pc. Carbon Scraper		Timing Light	STC-C250	3/8" Rev. Drill w/Chuck
	Set	GG-SSAGG	Single Shot Grease	STC-C2000A	3/8" Air Ratchet
CTB-6001BL	Blue 60" Cabinet		Gun	STI-325XLS	5 pc. 1/2" Dr. Extra
CTB-6100BL	Blue 60" Chest	HF-324	1/2" x 24" Flex Breaker		Deep Power Socket
CTB-6201BL	Blue 60" Side Cabinet		Bar		Set, 6 pt.
CTB-6324BL	Blue 60" Locker	HS-016	1/4" Speeder	STI-3214LMS	14 pc 1/2" Deep Metric
CTW-1002F	3/8" Drive 10-100 ft.-lb.	IR-104	1/4" Air Ratchet		Power Socket Set, 6 pt.
	Torque Wrench	IR-212	3/8" Air Impact Wrench	STI-3215MS	15 pc 1/2" Metric Power
CTW-2503F	1/2" Drive 30-250 ft.-lb.	IR-C107XP	3/8" Cornwell H.D. Air		Socket Set, 6 pt.
	Torque Wrench		Ratchet	STI-3215S	15 pc. 1/2" Power
CW-11	11MM Combination	IR-C232A	1/2" Cornwell Air Impact		Socket Set, 6 pt.
	Wrench 12 pt.		Wrench	STLN-3PFS	3 pc. Lug Nut Set
CW-16	16MM Combination	JA-1853	53 pc. Universal	STM-0213LS	13 pc 1/4" Metric Deep
	Wrench 12 pt.		Rethread Set		Socket Set, 6 pt
CW-17	17MM Combination	JRF-36H	3/8" Flex Ratchet w/	STM-0213S	13 pc 1/4" Metric
	Wrench 12 pt.		Handle		Socket Set, 6 pt.
CW-18	18MM Combination	JRFB-36	3/8" Bent Flex Ratchet	STM-2213LS	13 pc. 3/8" Metric Deep
	Wrench 12 pt.	JRFS-36	3/8" Stubby Flex		Socket Set, 6 pt.
CW-19	19MM Combination		Ratchet	STM-2213S	13 pc. 3/8" Metric
	Wrench 12 pt.	KCP-17S	17 pc. Chisel & Punch		Socket Set, 6 pt.
CW-20	20MM Combination		Set	T-2220SPA	3/8" x 5/8" Spark Plug
	Wrench 12 pt.	KD-135	Spark Plug Terminal		Skt.
CW-21	21MM Combination		Pliers	TC-1000	Heavy Duty Tubing
	Wrench 12 pt.	KD-21-360	Challenger Hacksaw		Cutter
CW-22	22MM Combination	KPP-4S	4 pc. Pin Punch Set	TE-27	H.D. 6 & 12V Circuit
	Wrench 12 pt.	LS-52500	Mechanic's		Tester
			Stethoscope		

Master Sets & Tool Boxes



80" TOOL BOX FEATURES

Construction:

- Heavy duty sealed, powder coated work surface.
- Top mat available for roller cabinet to protect paint finish from scratches.
- Cabinet will support total weight of 5,400 pounds to 7,200 pounds.
- Double wall construction for added rigidity.
- Polyester powdercoat paint provides corrosion protection, resists chipping and cracking.

DRAWERS

- Top drawer is rated at 450 pounds.
- All drawers have rear flange to hold tools in drawer.
- Extra deep drawers have double slides for extra load capacity.
- Heavy gauge three piece drawers are stronger, resist sagging.
- 100% full extension drawers allow full visibility.
- Non-slip drawer liners standard in each drawer.

SECURITY

- "TLC", or Total Lock Control keeps each drawer shut.
- Left-hand bank of drawers locks independently for extra security.
- High security tubular locks have tamper-proof collars.

MOBILITY

- Six spring loaded casters make the box easy to move.
- 14 gauge caster channels assure strength with movement.

CANOPY

- Full access open storage.
- Ideal for parts access.
- Secure double point locking system.
- Wire management ports.
- Twin gas struts keep door open.
- Double wall construction.
- Will hold horizontal locker.
- Bolts to cabinet for security.
- Powder coat paint.
- Work light and 10 piece hook set included.

HORIZONTAL LOCKER

- Either ONE or TWO can be installed on canopy.
- Designed for bulk storage of manuals.
- Gas struts hold locker door open.
- Two-point locking system assures security.
- Can be bolted to canopy for extra security.
- Has two knock-out plugs for wire management.
- Can be keyed alike to tool box for simplicity.
- Durable powdercoat finish.

CTB-4090BK

40" Wide Horizontal Locker, Black

CTB-4090BL

40" Wide Horizontal Locker, Blue

CTB-4090BR

40" Wide Horizontal Locker, Burgundy

CTB-4090NY

40" Wide Horizontal Locker, Yellow

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	39.50"	17.25"	16.50"

- Overall Capacity: 8,269 cu. in.
- Unit/Ship Weight: 68/85 lbs.

CTB-8500BK

Canopy, Black

CTB-8500BL

Canopy, Blue

CTB-8500BR

Canopy, Burgundy

CTB-8500NY

Canopy, Yellow

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	79.00"	28.40"	22.75"

- Unit/Ship Weight: 138/172 lbs.

COLOR SELECTION

BLACK



BLUE



BURGUNDY



YELLOW



The printed color may differ from the actual color due to variations in the printing process.



WARNING!

Storage unit can tip during loaded conditions.
Do not open more than one drawer at a time.
Do not use drawer as a step ladder.
Close lid and lock all drawers and doors before moving.
Lock all casters to prevent rolling.

CTB-8000BK

Roller Cabinet, Black

CTB-8000BL

Roller Cabinet, Blue

CTB-8000BR

Roller Cabinet, Burgundy

CTB-8000NY

Roller Cabinet, Yellow

CTB-8100BK

Chest, Black

CTB-8100BL

Chest, Blue

CTB-8100BR

Chest, Burgundy

CTB-8100NY

Chest, Yellow

CTB-8201BK

Side Cabinet, Black

CTB-8201BL

Side Cabinet, Blue

CTB-8201BR

Side Cabinet, Burgundy

CTB-8201NY

Side Cabinet, Yellow

Roller Cabinet and Canopy are shown here. Horizontal Locker, Chest and Side Cabinet are also available.

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT w/CASTERS
Unit Overall	79.00"	28.40"	47.50"
Top Drawer	52.90"	27.00"	5.00"
1 Drawer	35.90"	27.00"	7.50"
3 Drawers	35.90"	27.00"	3.38"
2 Drawers	35.90"	27.00"	2.38"
2 Drawers	14.34"	27.00"	12.00"
1 Drawer	14.34"	27.00"	7.25"
4 Drawers	14.34"	27.00"	3.75"
4 Drawers	14.34"	27.00"	2.75"

- Overall Capacity: 50,997 cu. in.
- Unit/Ship Weight: 850/945 lbs.

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	79.00"	28.40"	22.75"
6 Drawers	14.30"	27.00"	2.70"
4 Drawers	14.30"	27.00"	3.75"
3 Drawers	36.00"	27.00"	2.38"
2 Drawers	36.00"	27.00"	3.38"

- Overall Capacity: 25,835 cu. in.
- Unit/Ship Weight: 540/571 lbs.

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	21.00"	28.40"	39.75"
1 Drawer	14.30"	27.00"	7.25"
2 Drawers	14.30"	27.00"	2.75"
2 Drawers	14.30"	27.00"	3.75"
1 Drawer	14.30"	27.00"	12.00"

- Overall Capacity: 12,473 cu. in.
- Unit/Ship Weight: 215/245 lbs.



60" TOOL BOX FEATURES

CONSTRUCTION:

- Double wall construction provides strength; assures easy operation and alignment of fully loaded drawers.
- Roller cabinets contain 14 gauge caster channels, which reinforce the cabinet base while supporting 6" x 2" casters, provide load strength and mobility.
- Heavy duty extruded aluminum end handle mounts to either end of the roller cabinet.
- Coated with iron phosphate that gives better paint adhesion and corrosion protection; durable, baked-on polyester powder coat paint gives a fade resistant finish.
- Top mat available for all roller cabinets to protect paint finish on cabinet top from scratches.
- Heavy duty black powder coated work surface.

DRAWERS

- Heavy gauge steel, three-piece constructed drawers add load carrying strength, resist sagging.
- Rear flange on drawers prevents tools from spilling over the back.
- All drawers open at 100%, full extension providing complete front to back access of drawer.
- Triple member ball-bearing slides with quick disconnects, provide added strength and carrying capacity.
- Each drawer features an individual drawer latch activated from the drawer pull, keeping drawers from opening when moving the cabinet.
- Full-width drawer pulls provide one-hand operation.
- Roller cabinets contain one individual lockable drawer for personal storage security.
- Extra deep 12" drawer has double ball bearing drawer slide sets for greater weight capacity.
- Drawer liners are included to keep drawer bottoms scratch-free.

SECURITY

- High security steel chromed lock has tamper resistant security collar; comes with tubular keys and exclusive key covers.
- Tamper-proof, internal drawer locking system provides individual drawer locking when cabinet is in fully locked position.

LIDS

- Heavy constructed, reinforced lid secures till area when in closed/locked position.
- Heavy gauge, continuous piano hinge, equipped with rust-resistant stainless steel pin, prevents punch-out and lid removal yet provides easy opening/closing action.
- Heavy duty gas struts in chest.

MOBILITY

- 6" x 2" casters with roller bearings are resistant to gas, oil and solvents and are equipped with grease zerk fitting for ease of lubrication.
- Swivel casters contain heavy, dual bearing race-way for maximum support and dual locking system to keep loaded roller cabinets from moving.

LOCKER

- Reversible - hangs on either side of cabinet.
- Comes with three (3) ball bearing drawers and one (1) pull-out shelf.

CANOPY

- Full access open storage.
- Ideal for parts access.
- Secure double point locking system.
- Wire management ports.
- Twin gas struts keep door open.
- Double wall construction.
- Will hold horizontal locker.
- Bolts to cabinet for security.
- Powder coat paint.
- Work light and 10 piece hook set included.

HORIZONTAL LOCKER

- Designed for bulk storage of manuals.
- Gas struts hold locker door open.
- Two-point locking system assures security.
- Can be bolted to canopy for extra security.
- Has two knock-out plugs for wire management.
- Can be keyed alike to tool box for simplicity.
- Durable powdercoat finish.

COLOR SELECTION

BLACK



BLUE



BURGUNDY



YELLOW



The printed color may differ from the actual color due to variations in the printing process.

CTB-6090BK

60" Wide Horizontal Locker, Black

CTB-6090BL

60" Wide Horizontal Locker, Blue

CTB-6090BR

60" Wide Horizontal Locker, Burgundy

CTB-6090NY

60" Wide Horizontal Locker, Yellow

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	60.00"	13.00"	16.50"

- Overall Capacity: 10,121 cu. in.
- Unit/Ship Weight: 66/82 lbs.

CTB-6500BK

Canopy, Black

CTB-6500BL

Canopy, Blue

CTB-6500BR

Canopy, Burgundy

CTB-6500NY

Canopy, Yellow

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	60.00"	24.00"	22.75"

- Unit/Ship Weight: 132/158 lbs.

CTB-6324BK

Locker, Black

CTB-6324BL

Locker, Blue

CTB-6324BR

Locker, Burgundy

CTB-6324NY

Locker, Yellow

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	26.375"	24.00"	62.00"
3 Drawers	19.50"	22.50"	3.50"
1 Shelf	19.50"	22.50"	1.00"

- 39,215 cu. in.
- Weight Capacity: 750 lbs.
- Unit/Ship Weight: 200/225 lbs.

CTB-6001BK

Roller Cabinet, Black

CTB-6001BL

Roller Cabinet, Blue

CTB-6001BR

Roller Cabinet, Burgundy

CTB-6001NY

Roller Cabinet, Yellow

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT w/CASTERS
Units Overall	60.00"	24.00"	46.50"
Top Drawer	54.50"	22.70"	5.00"
2 Drawers	36.75"	22.70"	2.75"
3 Drawers	36.75"	22.70"	3.75"
1 Drawer	36.75"	22.70"	7.90"
2 Drawers	15.20"	22.70"	2.75"
2 Drawers	15.20"	22.70"	3.75"
1 Drawer	15.20"	22.70"	12.00"

- Overall Capacity: 35,310 cu. in.
- Unit/Ship Weight: 575/640 lbs.

CTB-6100BK

Chest, Black

CTB-6100BL

Chest, Blue

CTB-6100BR

Chest, Burgundy

CTB-6100NY

Chest, Yellow

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	60.00"	24.00"	22.00"
2 Drawers	36.75"	22.70"	2.75"
2 Drawers	36.75"	22.70"	3.75"
2 Drawers	15.20"	22.70"	2.75"
2 Drawers	15.20"	22.70"	3.75"
Till Area	59.75"	23.50"	4.50"

- Overall Capacity: 21,657 cu. in.
- Unit/Ship Weight: 313/365 lbs.

CTB-6201BK

Side Cabinet, Black

CTB-6201BL

Side Cabinet, Blue

CTB-6201BR

Side Cabinet, Burgundy

CTB-6201NY

Side Cabinet, Yellow

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	21.00"	24.00"	39.75"
1 Drawer	15.10"	22.70"	7.25"
2 Drawers	15.10"	22.70"	2.75"
2 Drawers	15.10"	22.70"	3.75"
1 Drawer	15.10"	22.70"	12.00"

- Overall Capacity: 11,089 cu. in.
- Unit/Ship Weight: 190/220 lbs.

Roller Cabinet, Canopy, Locker and Side Cabinet are shown here. Horizontal Locker and Chest are also available.



WARNING!

Storage unit can tip during loaded conditions.
Do not open more than one drawer at a time.
Do not use drawer as a step ladder.
Close lid and lock all drawers and doors before moving.
Lock all casters to prevent rolling.



58" TOOL BOX FEATURES

CONSTRUCTION:

- Double wall construction provides strength; assures easy operation and alignment of fully loaded drawers.
- Roller cabinets contain 14 gauge caster channels, which reinforce the cabinet base while supporting 6" x 2" casters, provide load strength and mobility.
- Heavy duty extruded aluminum end handle mounts to either end of the roller cabinet.
- Coated with iron phosphate that gives better paint adhesion and corrosion protection; durable, baked-on polyester powder coat paint gives a fade resistant finish.
- Top mat available for all roller cabinets to protect paint finish on cabinet top from scratches.

DRAWERS

- 250 lb capacity, full width drawer.
- Heavy gauge steel, three-piece constructed drawers.
- Rear flange on drawers prevents tools from spilling over the back.
- All drawers open at 100%, full extension providing complete front to back access of drawer.
- Triple member ball-bearing slides with quick disconnects.
- Each drawer features an individual drawer latch activated from the drawer pull, keeping drawers from opening when moving the cabinet.
- Full-width drawer pulls provide one-hand operation.
- Roller cabinets contain one individual lockable drawer for personal storage security.
- Drawer liners are included to keep drawer bottoms scratch-free.

SECURITY

- High security steel chromed lock has tamper resistant security collar; comes with tubular keys and exclusive key covers.
- Tamper-proof, internal drawer locking system provides individual drawer locking when cabinet is in fully locked position.

LIDS

- Heavy constructed, reinforced lid secures till area when in closed/locked position.
- Heavy gauge, continuous piano hinge, equipped with rust-resistant stainless steel pin, prevents punch-out and lid removal yet provides easy opening/closing action.
- Heavy duty gas struts in chest.

MOBILITY

- 6" x 2" casters with roller bearings are resistant to gas, oil and solvents and are equipped with grease zerc fitting for ease of lubrication.
- Swivel casters contain heavy, dual bearing race-way for maximum support and dual locking system to keep loaded roller cabinets from moving.

CANOPY

- Full access open storage - ideal for parts access.
- Secure double point locking system.
- Wire management ports.
- Twin gas struts keep door open.
- Double wall construction; will hold horizontal locker.
- Bolts to cabinet for security.
- Work light and 10 piece hook set included.

HORIZONTAL LOCKER

- Designed for bulk storage of manuals.
- Gas struts hold locker door open.
- Two-point locking system assures security.
- Can be bolted to canopy for extra security.
- Has two knock-out plugs for wire management.
- Can be keyed alike to tool box for simplicity.
- Durable powdercoat finish.



WARNING!

Storage unit can tip during loaded conditions. Do not open more than one drawer at a time. Do not use drawer as a step ladder. Close lid and lock all drawers and doors before moving. Lock all casters to prevent rolling.

CTB-5810BK

Roller Cabinet, Black

CTB-5810BL

Roller Cabinet, Blue

CTB-5810NY

Roller Cabinet, Yellow

CTB-5850BK

Canopy, Black

CTB-5850BL

Canopy, Blue

CTB-5850NY

Canopy, Yellow

CTB-5890BK

Horizontal Locker, Black

CTB-5890BL

Horizontal Locker, Blue

CTB-5890NY

Horizontal Locker, Yellow

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT w/CASTERS
Unit Overall	58.00"	24.00"	39.00"
1 Drawer	52.80"	22.70"	5.00"
8 Drawers	25.10"	22.70"	3.75"
1 Drawer	25.10"	22.70"	8.00"

- Overall Capacity: 28,050 cu. in.
- Weight Capacity: 1,540 lbs.
- Unit/Ship Weight: 385/440 lbs.

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	58.00"	24.00"	22.75"

- Unit/Ship Weight: 152/183 lbs.

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	58.00"	13.00"	16.50"

- Overall Capacity: 9,760 cu. in.
- Unit/Ship Weight: 68/80 lbs.

COLOR SELECTION

BLACK

BLUE

YELLOW



The printed color may differ from the actual color due to variations in the printing process.

Roller Cabinet, Canopy and Horizontal Locker are shown here.



42" TOOL BOX FEATURES

CONSTRUCTION:

- Double wall construction provides strength; assures easy operation and alignment of fully loaded drawers.
- Roller cabinets contain 14 gauge caster channels, which reinforce the cabinet base while supporting 6" x 2" casters, provide load strength and mobility.
- Heavy duty extruded aluminum end handle mounts to either end of the roller cabinet.
- Coated with iron phosphate that gives better paint adhesion and corrosion protection; durable, baked-on polyester powder coat paint gives a fade resistant finish.
- Top mat available for all roller cabinets to protect paint finish on cabinet top from scratches.
- Particle board furnished on all roller cabinets protects cabinet top during shipment and can also be used as work surface.

DRAWERS

- Heavy gauge steel, two-piece constructed drawers add load carrying strength, resist sagging.
- Rear flange on drawers prevents tools from spilling over the back.
- All drawers open at 100%, full extension providing complete front to back access of drawer.
- Triple member ball-bearing slides with quick disconnects, provide added strength and carrying capacity.
- Each drawer features an individual drawer latch activated from the drawer pull, keeping drawers from opening when moving the cabinet.
- Full-width drawer pulls provide one-hand operation.
- Extra wide drawer in roller cabinet contains full steel ribbed reinforcements.
- Roller cabinets contain one individual lockable drawer for personal storage security.
- Extra deep 12" drawer has double ball bearing drawer slide sets for greater weight capacity.
- Drawer liners are included to keep drawer bottoms scratch-free.

SECURITY

- High security steel chromed lock has tamper resistant security collar; comes with tubular keys and exclusive key covers.
- Tamper-proof, internal drawer locking system provides individual drawer locking when cabinet is in fully locked position.

LIDS

- Heavy constructed, reinforced lid secures till area when in closed/locked position.
- Heavy gauge, continuous piano hinge, equipped with rust-resistant stainless steel pin, prevents punch-out and lid removal yet provides easy opening/closing action.
- Heavy duty gas struts in chest.

MOBILITY

- 6" x 2" casters with roller bearings are resistant to gas, oil and solvents and are equipped with grease zerc fitting for ease of lubrication.
- Swivel casters contain heavy, dual bearing race-way for maximum support and dual locking system to keep loaded roller cabinets from moving.

LOCKER

- Reversible - hangs on either side of cabinet.
- Comes with three (3) ball bearing drawers and one (1) pull-out shelf.



Roller Cabinet, Chest, Locker and Side Cabinet are shown here.

CTB-4024BK

Roller Cabinet, Black

CTB-4024BL

Roller Cabinet, Blue

CTB-4024BR

Roller Cabinet, Burgundy

CTB-4024NY

Roller Cabinet, Yellow

CTB-4124BK

Chest, Black

CTB-4124BL

Chest, Blue

CTB-4124BR

Chest, Burgundy

CTB-4124NY

Chest, Yellow

CTB-6201BK

Side Cabinet, Black

CTB-6201BL

Side Cabinet, Blue

CTB-6201BR

Side Cabinet, Burgundy

CTB-6201NY

Side Cabinet, Yellow

CTB-6324BK

Locker, Black

CTB-6324BL

Locker, Blue

CTB-6324BR

Locker, Burgundy

CTB-6324NY

Locker, Yellow

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT w/CASTERS
Unit Overall	42.00"	24.00"	46.50"
1 Drawer	36.90"	22.70"	5.00"
2 Drawers	25.20"	22.70"	2.75"
3 Drawers	25.20"	22.70"	3.75"
1 Drawer	25.20"	22.70"	7.90"
2 Drawers	9.20"	22.70"	2.75"
2 Drawers	9.20"	22.70"	3.75"
1 Drawer	9.20"	22.70"	12.00"

- Overall Capacity: 23,444 cu. in.
- Weight Capacity: 3,600 lbs.
- Unit/Ship Weight: 457/514 lbs.

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Units Overall	42.00"	24.00"	22.00"
2 Drawers	25.20"	22.70"	2.75"
2 Drawers	25.20"	22.70"	3.75"
2 Drawers	9.20"	22.70"	2.75"
2 Drawers	9.20"	22.70"	3.75"
Till Area	41.75"	23.50"	4.50"

- Overall Capacity: 14,563 cu. in.
- Unit/Ship Weight: 238/285 lbs.

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	21.00"	24.00"	39.75"
1 Drawer	15.10"	22.70"	7.25"
2 Drawers	15.10"	22.70"	2.75"
2 Drawers	15.10"	22.70"	3.75"
1 Drawer	15.10"	22.70"	12.00"

- Overall Capacity: 11,089 cu. in.
- Unit/Ship Weight: 190/220 lbs.

UNIT AND DRAWER DIMENSIONS			
DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Unit Overall	26.375"	24.00"	62.00"
3 Drawers	19.50"	22.50"	3.50"
1 Shelf	19.50"	22.50"	1.00"

- 39,215 cu. in.
- Weight Capacity: 750 lbs.
- Unit/Ship Weight: 210/225 lbs.



WARNING!

Storage unit can tip during loaded conditions.
Do not open more than one drawer at a time.
Do not use drawer as a step ladder.
Close lid and lock all drawers and doors before moving.
Lock all casters to prevent rolling.

COLOR SELECTION

BLACK



BLUE



BURGUNDY



YELLOW



The printed color may differ from the actual color due to variations in the printing process.



WARNING!

Storage unit can tip during loaded conditions.
Do not open more than one drawer at a time.
Do not use drawer as a step ladder.
Close lid and lock all drawers and doors before moving.
Lock all casters to prevent rolling.

Roller Cabinet and Chest are shown here. Side Cabinet with drawers and Side Cabinet with shelves are also available.

29" CHEST AND CABINET FEATURES:

- All ball-bearing drawers.
- Each drawer rated at 125 lbs.
- Heavy duty 5" x 2" casters.
- Powdercoat paint resists chipping.
- 20 ga. three-piece drawers for durability.
- Drawers have rolled edges for strength.
- Double wall construction for rigidity.
- 100% full extension drawers allow visibility.
- Cabinet has 4" and 6" deep drawers.
- Chest is full depth for great storage.
- Tubular side handle.
- Chest and cabinet made from 18 gauge steel.

COLOR SELECTION

BLACK



BLUE



BURGUNDY



YELLOW



The printed color may differ from the actual color due to variations in the printing process.

CTB-2910BK

Top Chest, Black

CTB-2910BL

Top Chest, Blue

CTB-2910NY

Top Chest, Burgundy

CTB-2910NY

Top Chest, Yellow

CTB-2900BK

Roller Cabinet, Black

CTB-2900BL

Roller Cabinet, Blue

CTB-2900BR

Roller Cabinet, Burgundy

CTB-2900NY

Roller Cabinet, Yellow

CTB-2950BK

Side Cabinet, Black

CTB-2950BL

Side Cabinet, Blue

CTB-2950BR

Side Cabinet, Burgundy

CTB-2950NY

Side Cabinet, Yellow

CTB-2975BK

Side Cabinet, Black

CTB-2975BL

Side Cabinet, Blue

CTB-2975BR

Side Cabinet, Burgundy

CTB-2975NY

Side Cabinet, Yellow

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Units Overall	29.00"	20.00"	18.30"
Top Tray Area	28.90"	19.75"	2.60"
4 Drawers	25.20"	18.60"	1.40"
1 Drawer	25.20"	18.60"	3.40"

- Overall Capacity: 5,721 cu. in.
- Unit/Ship Weight: 97/109 lbs.

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT w/CASTERS
Units Overall	29.00"	20.00"	38.75"
4 Drawers	23.10"	18.50"	3.50"
2 Drawers	23.10"	18.50"	5.50"

- Overall Capacity: 10,641 cu. in.
- Weight Capacity: 2,000 lbs.
- Unit/Ship Weight: 170/215 lbs.

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Units Overall	13.60"	20.00"	33.10"
4 Drawers	9.75"	18.60"	3.40"
2 Drawers	9.75"	18.60"	5.40"

- Overall Capacity: 4,485 cu. in.
- Unit/Ship Weight: 85/110 lbs.

UNIT AND DRAWER DIMENSIONS

DRAWERS REQUIRED	WIDTH	DEPTH	HEIGHT
Units Overall	13.60"	20.00"	33.10"
2 Shelves	9.75"	18.60"	2.00"

- Overall Capacity: 4,485 cu. in.
- Unit/Ship Weight: 85/110 lbs.

CTB-8510ST

Plastic Work Cart

- Mobile workstation holds up to 250 lbs.; 125 lbs. per shelf.
- Built-in tool storage with individual slots for quick access.
- Made from heavy duty, blow-molded polymers with strong 2" diameter extruded PVC corner posts.
- Two trays for high and low access.
- Versatile sliding work top slides open in either direction; can be removed/stored on either end.
- Drain plugs in both trays allow for quick and easy clean-up.
- Locking hasps for padlocks on both ends of the lid for security.
- Ergonomic handles and storage slots are on both ends of the cart.
- Four (4) heavy duty rubber casters with two locking wheel brakes.
- Dimensions: 21-3/4"W x 43"L x 38-1/4"H.
- Weight: 39 lbs.



Two-Shelf Service Cart

- 4" wheels - two locking and 2 standard.
- Load capacity 350 pounds.
- Chrome 16 gauge steel frame.
- Durable powder coated finish.
- 3" deep shelves.
- Dimensions: 16"W x 30"L x 35-5/16"H.
- Shipping weight: 43 pounds.



PART NO.	COLOR	PART NO.	COLOR
CTB-350BK	Black	CTB-350NY	Yellow
CTB-350BL	Blue		

CTB-LD-BK Locking Drawer for 2-Shelf Service Carts, Black
CTB-LD-BL Locking Drawer for 2-Shelf Service Carts, Blue
CTB-LD-NY Locking Drawer for 2-Shelf Service Carts, Yellow
CTB-CDL Drawer Liners
CTB-CTL Tray Liners

Two-Shelf Service Cart with Locking Drawer

- Chrome lid latch locks lid in open position.
- 4" wheels - two locking and two standard.
- Load capacity 350 pounds.
- Chrome 16 gauge steel frame.
- Durable powder coated finish.
- Locking drawer is 30" x 16" x 3" and comes with two keys.
- 3" deep shelves.
- Dimensions: 16"W x 30"L x 35-5/16"H.
- Shipping weight: 43 pounds.



PART NO.	COLOR	PART NO.	COLOR
CTB-355LDBK	Black	CTB-355LDNY	Yellow
CTB-355LDBL	Blue		

CTB-LD-BK Locking Drawer for 2-Shelf Service Carts, Black
CTB-LD-BL Locking Drawer for 2-Shelf Service Carts, Blue
CTB-LD-NY Locking Drawer for 2-Shelf Service Carts, Yellow
CTB-350LE Leg Extensions (set of 4)
CTB-CDL Drawer Liners
CTB-CTL Tray Liners

Service Cart Three Drawer Add-Ons



- Mounts under any service cart with an inner leg opening of 28" or more and a depth of 4" or more.
- Primarily designed for use with the CTB-355LD or CTB-350 series service carts.
- Dimensions: 28"W x 15-3/4"D x 5-3/4" high.

PART NO.	COLOR	PART NO.	COLOR
CTB-3DRBK	Black	CTB-3DRNY	Yellow
CTB-3DRBL	Blue		

Long Tool Holders

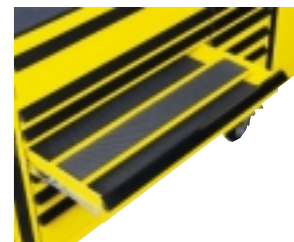
- Holds up to 26 items.
- Features various hole sizes.
- Locking lid for security.
- Dimensions: 16.14"H x 18.83"W x 3.94"D.



PART NO.	COLOR
CTB-THBK	Black
CTB-THBL	Blue
CTB-THNY	Yellow

Sliding Trays for Full Width Drawers

- Trays are designed for use with "CTB-prefixed" 42", 60" and 80" Tool Boxes.



PART NO.	42"	60"	80"
Black	CTB-83150BK	CTB-83151BK	CTB-83152BK
Blue	CTB-83150BL	CTB-83151BL	CTB-83152BL
Burgundy	CTB-83150BR	CTB-83151BR	CTB-83152BR
Yellow	CTB-83150NY	CTB-83151NY	CTB-83152NY

Writing Insert for "CTB" 60" Series (not illustrated)

PART NO.	COLOR	PART NO.	COLOR
CTB-83155BK	Black	CTB-83155BR	Burgundy
CTB-83155BL	Blue	CTB-83155NY	Yellow

Accessory Shelves for CTB-6324 Series Lockers (not illustrated)

- Each shelf is made of 18 gauge cold rolled steel.
- Will support 110 pounds.
- Shelves come equipped with ball-bearing slides for easy operation.
- Can be mounted anywhere within the locker.

PART NO.	COLOR	PART NO.	COLOR
CTB-83124BK	Black	CTB-83124BR	Burgundy
CTB-83124BL	Blue	CTB-83124NY	Yellow

Accessory Drawers for CTB-6324 Series Lockers (not illustrated)

- 4" deep drawer mounted on ball-bearing slides has 1500 cu. in. capacity and will hold 110 pounds.
- Drawers can be located anywhere within the locker and can be mixed with pull-out shelves.

PART NO.	COLOR	PART NO.	COLOR
CTB-83125BK	Black	CTB-83125BR	Burgundy
CTB-83125BL	Blue	CTB-83125NY	Yellow

BX-04

Utility Tool Box

- Compact heavy-duty steel box. • Excellent for storing compression testers, vacuum testers and other similar items.

WIDTH	DEPTH	HEIGHT
8"	6-1/2"	1-3/4"



BX-21

Utility Tool Box

- Compact heavy-duty steel box. • Used with **SKA-211S** and **SKA-311S** Bit Sets.

WIDTH	DEPTH	HEIGHT
6-1/4"	2-1/2"	1"



CR-RB1

Cantilever Mobile Tool Box



- Heavy duty steel frame. • Red powder coat finish. • Five storage areas. • 2,155 sq. inches of storage. • Handle pulls out 16" for easy mobility. • Adjusts from 14" to 30" high. • Load capacity: 70 lbs. • Dimensions: 25"L x 15.5"W x 14"H (Folded down without handle); 27"L x 15.5"W x 30"H (Standing up with handle out). • Weight: approx. 42 lbs. • Axle height: 1-1/2" between tool box and floor. • GS testing for functional safety and safety technical design as well as for stability and wear testing. • Double engagement security.

LS-14260

Bean Bag Parts Tray



- Conforms to any irregular surface - set on a fender, engine, radiator, or virtually anywhere under the hood! • Heat resistant nylon bag won't scratch. • One compartment is magnetic to hold metal parts. • Conveniently hangs when not in use. • Dimensions: 10" x 15".

TMM-MTT01

Magnetic Tool Tray



- Levels off at any angle, hinges independently swivel. • Can suspend from hood of car. • Rubber cups for attaching to cosmetically sensitive surfaces. • Durable plastic resistant to chemicals such as gasoline, oil and other petroleum based products. • Holds 2 to 10 pounds.

FB-724-2

Parts Box

- Features 15 removable dividers to allow compartment sizes to be customized to meet specific storage needs from 9 to 24 compartments. • Color: Grey with a clear lid. • Overall dimensions: 15" x 11-3/4" x 2-1/2".



CWI-WMPT

Wheeled Magnetic Parts Tray

- Stainless steel tray with built-in magnets to keep small parts and tools from being lost. • 2 Handles for easy carrying of tools to the job site. • Three shielded ball bearing casters for easy mobility and long life. • Oil-resistant and scratch-proof wheels to keep tools within reach. • Dimensions: 13" diameter, 3/4" deep.



MPT-1

Round Magnetic Parts Tray

- Keep small parts, hardware and small tools close at hand. • Use in any position - right side up or upside down. • 6" diameter, 1-1/8" deep. • Stainless steel.



MPT-2

Rectangular Magnetic Parts Tray

- Use in any position - right side up or upside down. • 9-1/2"L x 5-1/2"W x 1-3/4"D. • Stainless Steel.



MPT-3

Triple Magnetic Parts Tray

- Stainless steel tray. • Heavy duty rubber covered magnets will not scratch metal. • Fully magnetized to hold metal fasteners, etc. • Can be used upside down or on side of vehicle. • 13"L x 6"H.



MPT-4

Quad Magnetic Parts Tray

- All stainless steel. • Holds small metal parts and tools conveniently. • Attaches to any flat metal surface. • Use in any position - even upside down! • Rubber protectors prevent magnets from scratching surfaces. • Size: 11-1/2"L x 10-3/4"W x 1"D.



Accessory Trays

- Designed for keeping those "most used" aerosols, cleaners and tools always available.
- Trays easily fit over the lip of most standard roller tool boxes, or can be attached directly to any hard surface.
- Made of steel with red enamel finish.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-P90	25" long x 3" wide	VM-P91	15" long x 3" wide

Non-Slip Matting

- Non-slip surface holds tools and parts in place.
- "State of the Art" tool box drawer liners made from black premiere material.
- 60-foot jumbo rolls allow the non-slip material to be cut in a variety of shapes/sizes for use anywhere.
- Great for tool boxes and protecting the finish on vehicles.
- Completely washable.



PART NO.	DESCRIPTION
ANS-P02X60B	2' x 60' Jumbo Roll
ANS-P03X60B	3' x 60' Jumbo Roll

AF-900D

Key Ring

- Solid brass, bright nickel plated.
- Halves separate like a coupler and plug.
- Take house key or other items when leaving car keys.



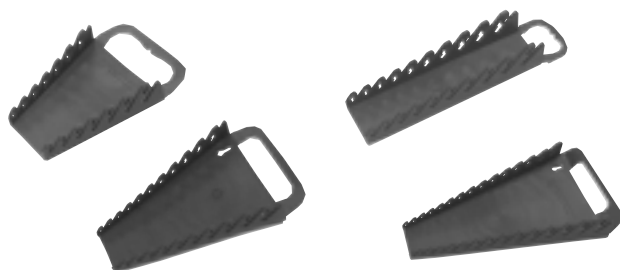
SE-63135

Key Caddy

- Used to carry keys: great for welders to carry torch ignitors.
- Heavy duty chrome-plated die-cast case with stainless steel chain.
- Large key ring.
- Returns keys automatically.



Gripper Wrench Organizers



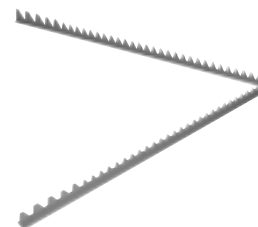
- Flexible blue material holds tools securely for travel.
- Space saver folding handle.
- Mounts easily on a wall.

PART NO.	DESCRIPTION
WRK-7	7 pc. Wrench Organizer
WRK-10S	10 pc. Stubby Wr. Organizer
WRK-11	11 pc. Wrench Organizer
WRK-15	15 pc. Wrench Organizer

TW-BWR

Wrench Organizer

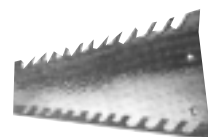
- Durable blue plastic with pressure sensitive backing for mounting on metal drawer surface.
- Accepts wrenches 1/4" through 1-1/4" openings.
- Cuts easily to desired lengths.
- Comes in a pair; 22-1/2" overall.



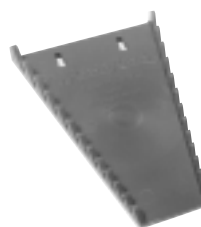
VM-V515

Wrench Holder

- Accommodates 12 wrenches.
- May be used as an organizer in tool box drawer, hung on the wall, or carried to the job.



Wrench Holders



- Professional way to organize wrenches.
- Blue plastic.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
PR-WRP-12	12 piece	PR-WRPI-12	12 piece, inverted
PR-WRP-15	15 piece	PR-WRPI-15	15 piece, inverted

TP-76W

Wrench Organizer



- Organizes 76 wrenches: 29 Combination wrenches (1/4" to 1" and 6mm to 20mm); 24 Allen wrenches; 20 miniature wrenches; and 3 flare nut wrenches.
- Outer dimensions: 16" x 22".
- Base can be modified to fit any smaller tool chest.
- Made of a durable plastic material.
- Product does NOT include wrenches as shown in illustration above.

TP-171S

Socket Organizer

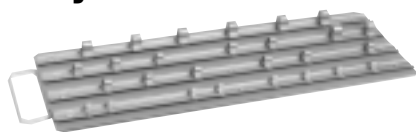


- Organizes 171 pieces of socket tools: Standard, Metric, Deep Wells, 1/4, 3/8, 1/2 Drive and ratchets.
- Outer dimensions: 16-1/2" x 22".
- Base can be modified to fit any smaller tool chest.
- Made of a durable plastic material.
- Product does NOT include sockets or ratchets as shown in illustration above.

For Locks and Keys, Casters, Drawer Liners, Dust Covers, Paint, and other accessories, see your Cornwell Dealer!

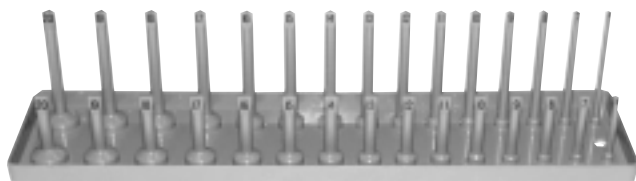
VM-V444

Socket Rack Tray



- Keeps all sockets in one place.
- Holds a wide range of sockets and attachments—regular, long, universal and extensions.
- Convenient carrying handle.
- 6" x 18" metal frame with four (4) 17" sockets racks attached.
- Comes with the following clips which can be arranged as desired on socket racks: (20) 1/4" clips, (30) 3/8" clips, and (30) 1/2" clips.

Socket Trays

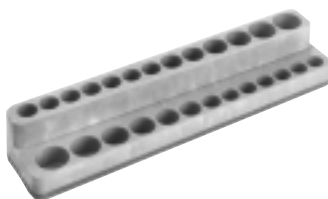


- Organize sockets for quick, easy identification by size and style.
- Made of rugged ABS plastic to resist oil, grease and tool box abuse.
- Holds regular and deep well sockets.
- Each post is marked for socket size.
- Fits virtually all sockets, domestic and imported.

PART NUMBER	DRIVE SIZE	HOLDS REGULAR AND DEEP LENGTH SOCKETS:
HA-1201	1/2"	3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1-1/16", 1-1/8", 1-1/4"
HA-1202	1/2"	10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 16mm, 17mm, 18mm, 19mm, 20mm, 21mm, 22mm, 23mm, 24mm, 25mm, 27mm
HA-1401	1/4"	1/8", 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2", 9/16", 5/8"
HA-1402	1/4"	4mm, 4.5mm, 5mm, 5.5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm
HA-3801	3/8"	1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"
HA-3802	3/8"	6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 16mm, 17mm, 18mm, 19mm, 20mm

Magnetic Socket Holders

- Designed to hold metric or standard sockets, both short and deep.
- Durable non-stick plastic walls.
- Fuel and oil resistant magnetic base made of Nitrile rubber.
- Strong magnet - holds even over fender mats, strong enough to hold upside down or at an angle.
- Fits most tool boxes and drawers.



PART NO.	COLOR	HOLDS:
MS-711	Neon Blue	3/8" Dr. Reg. Length Skt.
MS-714	Std. Red	3/8" Dr. Reg. Length Skt.
MS-719	Dark Green	3/8" Dr. Reg. Length Skt.
MS-720	Neon Blue	1/4" Dr. Reg. & Dp. Skt.
MS-721	Std. Red	1/4" Dr. Reg. & Dp. Skt.
MS-726	Dark Green	1/4" Dr. Reg. & Dp. Skt.
MS-777	Std. Red	3/8" Dr. Deep Lgth Skt.
MS-782	Dark Green	3/8" Dr. Deep Lgth Skt.
MS-784	Neon Blue	3/8" Dr. Deep Lgth Skt.

Magnetic Socket Holders

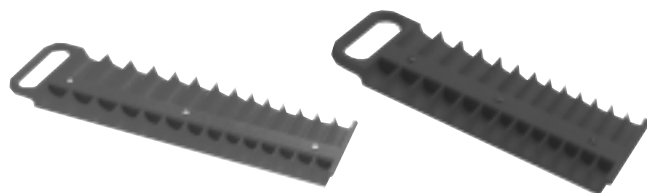


- For 1/2" drive chrome and impact sockets.
- Twenty-two socket compartments for both standard and deep sockets.
- Holds sockets up to 1" or 20MM.
- Sockets easily identified.
- Held by powerful magnet.
- Made of strong ABS plastic.
- Rubber feet to prevent scratching.

PART NO.	DESCRIPTION	COLOR
CLS-40030	Magnetic Socket Holder	BLUE
LS-40900	Magnetic Socket Holder	RED
LS-40990	Magnetic Socket Holder	GREEN

NOTE: Sockets are **not** included with the trays.

Magnetic Socket Holders



- Organize fractional and metric sockets.
- Made of strong ABS plastic.

PART NO.	DESCRIPTION	HOLDS
CLS-40010	1/4" Mag. Skt Hldr, Blue	26 pcs
LS-40120	1/4" Mag. Skt Hldr, Red	26 pcs
LS-40130	1/4" Mag. Skt Hldr, Green	26 pcs
CLS-40020	3/8" Large Mag. Skt Hldr, Blue	28 pcs
LS-40200	3/8" Large Mag. Skt Hldr, Red	28 pcs
LS-40210	3/8" Large Mag. Skt Hldr, Green	28 pcs

Socket Rails

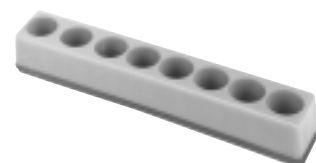


- Hold sockets securely, releases quickly and easily.
- 18" rails made of high quality, high impact plastic.
- Adhesive backing.
- By stacking pegs, rails become space saving vertical holders for crowfoot sockets.

PART NO.	DESCRIPTION
PR-SR25	1/4" socket rail with 20 1/4" pegs
PR-SR38	3/8" socket rail with 18 3/8" pegs
PR-SR50	1/2" socket rail with 14 1/2" pegs

- PR-SR25P 1/4" replacement pegs
- PR-SR38P 3/8" replacement pegs
- PR-SR50P 1/2" replacement pegs

Magnetic Universal Socket Holders



- Two models designed to hold up to either ten (10) 1/4" universal sockets or eight (8) 3/8" universal sockets.
- Durable non-stick plastic walls.
- Fuel and oil resistant magnetic base made of Nitrile rubber.
- Strong magnet - attaches to the side or underneath any metal vehicle.
- Fits most tool boxes and drawers.

PART NO.	COLOR	HOLDS:
MS-MTS480	Neon Blue	1/4" Dr. Universal Sockets
MS-UNV380	Neon Blue	3/8" Dr. Universal Sockets
MS-UNV386	Dark Green	3/8" Dr. Universal Sockets

VM-V445

Socket Tray



- Designed to straddle tool across 16" wide carts.
- Shallow base design allows placement on cart to slide end to end over existing contents.
- Red powder coated with chrome rails attached and comes with assortment of 1/4", 3/8" and 1/2" socket clips.

VM-V423

Socket Holder Set



- Consists of one each of the following: VM-V420, VM-V421 and VM-V422.

Socket Holders



- Holds sockets and attachments.
- Use in tool box or chest, hang on wall, or carry to job.
- Unique spring-steel clip design holds sockets firmly in place.
- Rail and clips are nickel plated.

PART NO.	DESCRIPTION
VM-V420	Rail with 16 1/4" clips
VM-V421	Rail with 16 3/8" clips
VM-V422	Rail with 16 1/2" clips
VM-V424	Rail with 10 3/4" clips

SOCKET RAILS



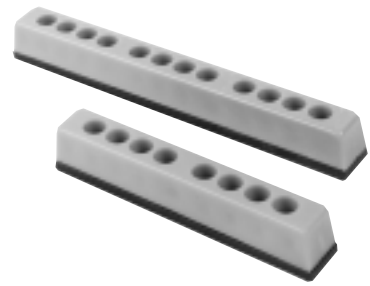
- 90° rails stand up so less space is needed.
- Made of lightweight aluminum, anodized to a bright red or blue finish.
- All drive sizes fit on one rail.
- Adjustable pegs can be easily moved along the socket rail by tightening the set screw.
- Sockets will not fall off.
- Available in three lengths: 10.5", 13.5", 17", and 48".

PART NO.		LENGTH	NO. OF PEGS	DR. SIZE
BLUE	RED			
TOP-B90-10-1/4	TOP-R90-10-1/4	10-1/2"	10	1/4"
TOP-B90-10-3/8	TOP-R90-10-3/8	10-1/2"	11	3/8"
TOP-B90-13-3/8	TOP-R90-13-3/8	13-1/2"	13	3/8"
TOP-B90-13-1/2	TOP-R90-13-1/2	13-1/2"	13	1/2"
TOP-B90-17-3/8	TOP-R90-17-3/8	17"	16	3/8"
TOP-B90-17-1/2	TOP-R90-17-1/2	17"	16	1/2"
TOP-B90-48	TOP-R90-48	48"	-	-

TOP-P250 1/4" Drive Rail Pegs (10)
TOP-P375 3/8" Drive Rail Pegs (10)
TOP-P500 1/2" Drive Rail Pegs (10)

1/4" Magnetic Hex Bit Organizers

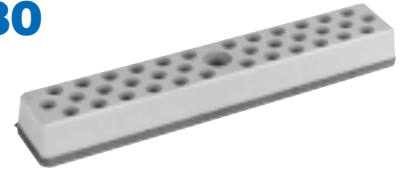
- Oil and fuel resistant non-stick high impact Neon Blue plastic with powerful magnetic rubber bases.
- Easily transferable from tool drawer to work area.
- Utilizes a high-tech non-transferable magnetic material that will not magnetize tools or damage on-board automotive computers and other automotive related circuitry.



PART NO.	DESCRIPTION
MS-HB080	8 pc. 1/4" Hex Bit Organizer
MS-HB0120	12 pc. 1/4" Hex Bit Organizer

MS-MTS580

Magnetic Bit Holder



- Designed to hold up to thirty-six (36) different 1/4" bit sizes and types with the socket driver located in the middle.
- Neon blue.

EC-S716

Sidewinders Tool Box and Tool Cart Side Organizer



- Stores long tools - Pry bars, Screwdrivers, Extensions.
- Unique air tool storage design utilizing the quick disconnect nipple.
- Overall Length: 15".

12" Magnetic Tool Holders



- Three magnets on the back of tool mounts easily to bottom of tool drawer, side of tool chest or to any flat ferrous metal surface.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
UL-MH12G	Bright Green	UL-MH12Y	Neon Yellow
UL-MH12R	Traditional Red		

Magnetic Tool Holders

- Powerful magnet holds even heavy hand tools.
- Mounting screws included.
- Shorter magnet fits nicely on end of most tool boxes.



PART NO.	DESCRIPTION
LS-21300	13" long w/2 mounting holes 10" apart
LS-21400	24" long w/2 mounting holes 16" apart

PART NO.	DESCRIPTION	USE WITH (Box/Series):	PART NO.	DESCRIPTION	USE WITH (Box/Series):
CASTERS			CTB-83005		
CTB-8003LC	Locking	CTB-350	CTB-83006	Lock & Key	CTB-2700, CTB-2900, CTB-2950
CTB-8003SC	Non-Locking	CTB-350	CTB8006LK2	Locks & Keys (2)	CTB-2710, CTB-2910, CTB-2975
CTB-83101	Spring Loaded	CTB-4024, CTB-6001	MATS/TOPS		
CTB-428584	Non-Locking Swivel	CTB-8510ST	CTB-83040	Mat	CTB-8000
CTB-428585	Locking Rigid	CTB-8510ST	CTB-83114	Top Mat	CTB-5810
CTB-519023	Rigid, 5"x2"	CTB-2700, CTB-2900	CTB-83120	Mat	CTB-6001
CTB-519024	Swivel, 5"x2"	CTB-2700, CTB-2900	CTB-518278	Top Mat	CTB-6201
CTB-519040	Swivel, 6"x2"	CTB-4024, CTB-6001	CTB-518432	Top Mat	CTB-4024
CTB-519041	Rigid, 6"x2"	CTB-4024, CTB-6001	CTB-BB5810	Butcher Block Top	CTB-5810
CTB-519042	Swivel black, 6"x2"	CTB-6001	CTB-BB6024	Butcher Block Top	CTB-6001
CTB-519043	Rigid black, 6"x2"	CTB-6001	CTB-BB6201	Butcher Block Top	CTB-6201
CTB-519044	Swivel, letters, 6"x2"	CTB-4024, CTB-6001	CTB-BB8028	Butcher Block Top	CTB-8000
CTB-519045	Rigid, letters 6"x2"	CTB-4024, CTB-6001	CTB-BB8201	Butcher Block Top	CTB-8201
CTB-519046	Rigid, 6"x2"	CTB-8000	CTB-SS5810	Stainless Steel Top	CTB-5810
CTB-519047	Swivel, 6"x2"	CTB-8000	CTB-SS6024	Stainless Steel Top	CTB-6001
CTB-519050	Swivel, 6"x2"	CTB-5810	CTB-SS8028	Stainless Steel Top	CTB-8000
CTB-519051	Rigid, 6"x2"	CTB-5810	MISCELLANEOUS PARTS		
CTB-SCPLW	Locking	CTB-355LD	CTB-293-92-100	Locking Drawer	CTB-114
CTB-SCPW	Non-Locking	CTB-355LD	CTB-293-92-170	Locking Drawer	CTB-100
COVERS			CTB-350LE	Leg Extension	CTB-355LD
CTB-29SC	Side Cabinet	CTB-29" Series	CTB-83135	Mini Plastic Bin	CTB-6500, CTB-8500
CTB-29TBC	Chest & Cab.	CTB-29" Series	CTB-83136	Small Plastic Bin	CTB-6500, CTB-8500
CTB-42CVR2	Cab & Chest	CTB-42" Series	CTB-99821	2" Single Hook (10)	
CTB-58CC	Cabinet	CTB-58"	CTB-99827	2" Double Hook (10)	
CTB-58COVER	Cab. & Canopy	CTB-58"	CTB-99834	5/8" Spring Clip (10)	
CTB-60CVR2	Cab & Chst w/Panels	CTB-60" Series	CTB-99846	Canopy Parts Shelf	
CTB-60CVR3	Cab & Canopy	CTB-60" Series	CTB-99848	Bin Hlding Strip	CTB-83135, CTB-83136
CTB-60SC	Univ Side Cab, 24"		CTB-99851	10 pc. Hook Set	CTB-5850, CTB-6324, CTB-6500, CTB-8500
CTB-60TBC	Cab w.Side Panels	CTB-60" Series	CTB-99852	30 pc. Hook Set	CTB-6500, CTB-8500
CTB-80COVER	Cabi. & Canopy	CTB-80" Series	CTB-517266	12" Logo	CTB-2900, CTB-2910, CTB-2950, CTB-2975, CTB-6201, CTB-6324, CTB-8100, CTB-8201
CTB-80TBC	Cab w.Side Panels	CTB-8000			CTB-4024, CTB-4124, CTB-5810, CTB-5850, CTB-6001, CTB-6100, CTB-6500, CTB-8000, CTB-8500
CTB-6324LC	Locker	CTB-6324	CTB-517270	16" Logo	CTB-6100, CTB-8500
DRAWER PULLS			CTB-518210	Gas Strut	
CTB-83024	9" Black	CTB-4024	CTB-518228	H.D. B.B. Slide Set	
CTB-83025	15" Black	CTB-6000	CTB-518276	18" B.B. Slide Set	
CTB-83026	25" Black (left)	CTB-4024	CTB-518277	N.B. B.B. Slide Set	
CTB-83027	38" Black	CTB-4024	CTB-518438	22" deep	CTB-4024, CTB-4124, CTB-5810, CTB-6001, CTB-6100
CTB-83028	54" Black	CTB-4024	CTB-518501	N.B. B.B. Slide Set	CTB-6201, CTB-6324
CTB-83029	37" Black	CTB-4024	CTB-518502	24" deep	CTB-5850, CTB-6500, CTB-8500
CTB-83039	End Caps (10)		CTB-518504	Door Bumper	CTB-4090, CTB-5850, CTB-6090, CTB-6500, CTB-5890, CTB-8500
CTB-83042	9" Chrome	CTB-4024, CTB-4124	CTB-518504	Grommet	CTB-4090, CTB-5890, CTB-5850, CTB-6090, CTB-6500
CTB-83043	15" Chrome	CTB-6001, CTB-6100, CTB-6201, CTB-8000, CTB-8100, CTB-8201	CTB-518519	Strut	CTB-4090, CTB-5850, CTB-6090, CTB-6500, CTB-8500
CTB-83044	25" Chrome	CTB-4024, CTB-4124, CTB-5810	CTB-LD-BK	Stop Pin	CTB-4090, CTB-5850, CTB-6090, CTB-6500, CTB-8500
CTB-83045	38-9/16" Chrome	CTB-6001, CTB-6100, CTB-8000, CTB-8100	CTB-LD-BL	Locking Drawer	CTB-350BK, CTB-355LDBK
CTB-83046	54" Chrome	CTB-6001, CTB-8000	CTB-LD-BL	Locking Drawer	CTB-350BL, CTB-355LDBL
CTB-83047	37-9/16" Chrome	CTB-4024	CTB-LD-NY	Locking Drawer	CTB-350NY, CTB-355LDNY
CTB-83115	25" Silver (right)	CTB-5810	CTB-LS	Lock Socket	
CTB-83158	25" Black (right)	CTB-4024	CTB-RBSLIDEC2	Roller Bearing Slide	CTB-355
CTB-83159	53" Black	CTB-4024	CTB-SCPP1	Plastic Inserts (4)	CTB-355
CTB-83165	53" Silver	CTB-4024, CTB-5810	PAINT		
HANDLES			CTB-82175	.6 oz. bottle touch-up, yellow	
CTB-82190	Tubular Assy	CTB-2700	CTB-82200	.6 oz. bottle touch-up, burgundy	
CTB-82245	Side	CTB-2700, CTB-2900	CTB-82202	.6 oz. bottle touch-up, black	
CTB-83021	End	CTB-2700, CTB-4024, CTB-6001	CTB-82204	.6 oz. bottle touch-up, blue	
CTB-83100	End	CTB-8000	CTB-82219	.6 oz. bottle touch-up, orange	
CTB-503148	Pull	CTB-4090, CTB-5850, CTB-5890, CTB-6090, CTB-6324, CTB-6500, CTB-8500	CTB-82225	.6 oz. bottle touch-up, green	
LINERS			CTB-82227	.6 oz. bottle touch-up, tropical teal	
CTB-83007	Kit	CTB-2700, CTB-2710	TRIM (Chrome)		
CTB-83008	Kit	CTB-8000	CTB-83139	Front Corner (right)	CTB-5850, CTB-6500, CTB-8500
CTB-83010	Kit	CTB-6001	CTB-83140	Front Corner (left)	CTB-5850, CTB-6500, CTB-8500
CTB-83014	Kit	CTB-6100	CTB-503059	Cab & Side (right)	CTB-4024, CTB-6001, CTB-6201, CTB-8000, CTB-8201
CTB-83015	Kit	CTB-6201	CTB-503060	Cab & Side (left)	CTB-4024, CTB-6001, CTB-6201, CTB-8000, CTB-8201
CTB-83089	Kit	CTB-4024	CTB-503069	Chest (right)	CTB-4124, CTB-6100, CTB-8100
CTB-CDL	Drawer Liners	CTB-350, CTB-355LD	CTB-503070	Chest (left)	CTB-4124, CTB-6100, CTB-8100
CTB-CTL	Tray Liners	CTB-350, CTB-355LD	CTB-503084	Locker (corner)	CTB-6324
LOCKS & KEYS			CTB-503129	Cab & Side (back)	CTB-4024, CTB-6001, CTB-6201, CTB-8000, CTB-8201
CTB-83000	Lock & Key (sec. dr)	CTB-4024, CTB-6001, CTB-8000			
CTB-83001	Lock & Key	CTB-4024, CTB-4124, CTB-5810, CTB-6001, CTB-6100, CTB-6201, CTB-8000, CTB-8100, CTB-8201			
CTB-83002	Lock & Key (lid)	CTB-4124, CTB-6100			
CTB-83003	Lock & Key	CTB-4090, CTB-5850, CTB-5890, CTB-6090, CTB-6324, CTB-6500, CTB-8500			

DRIVE TOOLS



The Choice of Professionals®
- Since 1919 -



TS-021S

21 Piece Tool Set, 6 Point Sockets

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
E-0-2	1/4" x 2" Extension	T-0216	1/4" x 1/2" Socket
E-0-4	1/4" x 4" Extension	T-0208L	1/4" x 1/4" Deep Socket
HN-02P	1/4" Spin Handle	T-0209L	1/4" x 9/32" Deep Socket
T-0206	1/4" x 3/16" Socket	T-0210L	1/4" x 5/16" Deep Socket
T-0207	1/4" x 7/32" Socket	T-0211L	1/4" x 11/32" Deep Socket
T-0208	1/4" x 1/4" Socket	T-0212L	1/4" x 3/8" Deep Socket
T-0209	1/4" x 9/32" Socket	T-0214L	1/4" x 7/16" Deep Socket
T-0210	1/4" x 5/16" Socket	T-0216L	1/4" x 1/2" Deep Socket
T-0211	1/4" x 11/32" Socket	TR-3	1/4" Drive Ratchet
T-0212	1/4" x 3/8" Socket	UJ-0	1/4" Universal Joint
T-0214	1/4" x 7/16" Socket		

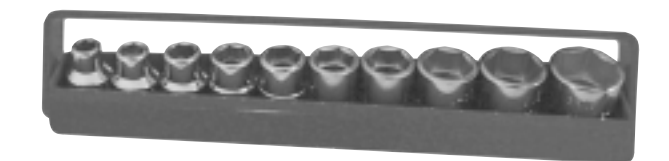


ST-016

6 Piece Standard Socket Set, 12 Point, 1/4" to 7/16"

• Set consists of the following Part Numbers and sizes:

T-0108	1/4"	T-0111	11/32"	ST-0C(6)	1/4" Clips
T-0109	9/32"	T-0112	3/8"	ST-1R	4-3/8" Rail
T-0110	5/16"	T-0114	7/16"		



ST-0210S

10 Piece Standard Socket Set, 6 Point, 3/16" to 9/16"

• Set consists of the following Part Numbers and sizes:

T-0206	3/16"	T-0210	5/16"	T-0216	1/2"
T-0207	7/32"	T-0211	11/32"	T-0218	9/16"
T-0208	1/4"	T-0212	3/8"	ST-47	Tray
T-0209	9/32"	T-0214	7/16"		



ST-0110S

10 Piece Standard Socket Set, 12 Point, 3/16" to 9/16"

• Set consists of the following Part Numbers and sizes:

T-0106	3/16"	T-0110	5/16"	T-0116	1/2"
T-0107	7/32"	T-0111	11/32"	T-0118	9/16"
T-0108	1/4"	T-0112	3/8"	ST-47	Tray
T-0109	9/32"	T-0114	7/16"		

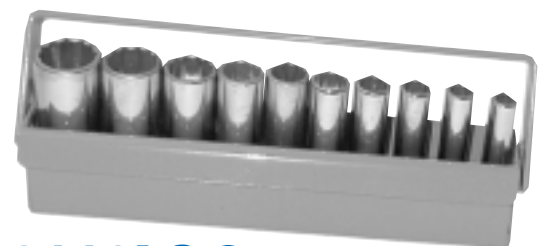


ST-0210LS

10 Piece Deep Socket Set, 6 Point, 3/16" to 9/16"

• Set consists of the following Part Numbers and sizes:

T-0206L	3/16"	T-0210L	5/16"	T-0216L	1/2"
T-0207L	7/32"	T-0211L	11/32"	T-0218L	9/16"
T-0208L	1/4"	T-0212L	3/8"	ST-48	Tray
T-0209L	9/32"	T-0214L	7/16"		



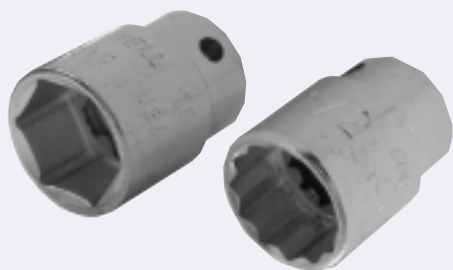
ST-0110LS

10 Piece Deep Socket Set, 12 Point, 3/16" to 9/16"

• Set consists of the following Part Numbers and sizes:

T-0106L	3/16"	T-0110L	5/16"	T-0116L	1/2"
T-0107L	7/32"	T-0111L	11/32"	T-0118L	9/16"
T-0108L	1/4"	T-0112L	3/8"	ST-48	Tray
T-0109L	9/32"	T-0114L	7/16"		

Standard Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
T-0206	T-0106	3/16"	29/32"	5/32"	5/16"	1/2"
T-0207	T-0107	7/32"	29/32"	3/16"	11/32"	1/2"
T-0208	T-0108	1/4"	29/32"	13/64"	3/8"	1/2"
T-0209	T-0109	9/32"	29/32"	7/32"	7/16"	1/2"
T-0210	T-0110	5/16"	29/32"	1/4"	15/32"	1/2"
T-0211	T-0111	11/32"	29/32"	9/32"	1/2"	1/2"
T-0212	T-0112	3/8"	29/32"	9/32"	35/64"	35/64"
T-0214	T-0114	7/16"	29/32"	3/8"	39/64"	35/64"
T-0216	T-0116	1/2"	29/32"	3/8"	11/16"	19/32"
T-0218	T-0118	9/16"	29/32"	3/8"	49/64"	41/64"

Drive Tools
(SAE & Metric)

Deep Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
T-0206L	T-0106L	3/16"	2-1/64"	3/16"	5/16"	1/2"
T-0207L	T-0107L	7/32"	2-1/64"	7/32"	11/32"	1/2"
T-0208L	T-0108L	1/4"	2-1/64"	7/32"	3/8"	1/2"
T-0209L	T-0109L	9/32"	2-1/64"	1/4"	7/16"	1/2"
T-0210L	T-0110L	5/16"	2-1/64"	1/4"	15/32"	1/2"
T-0211L	T-0111L	11/32"	2-1/64"	9/32"	1/2"	1/2"
T-0212L	T-0112L	3/8"	2-1/64"	9/32"	35/64"	35/64"
T-0214L	T-0114L	7/16"	2-1/64"	3/8"	39/64"	35/64"
T-0216L	T-0116L	1/2"	2-1/64"	13/32"	11/16"	19/32"
T-0218L	T-0118L	9/16"	2-1/64"	1/2"	49/64"	41/64"

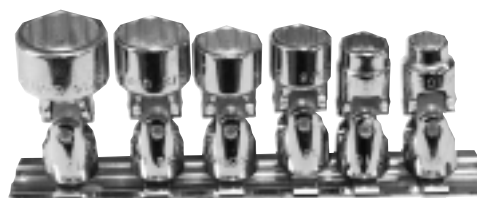


TSU-028

8 Piece Standard Universal Socket Set, 6 Point, 1/4" to 9/16"

• Set consists of the following Part Numbers and sizes:

U-0208	1/4"	U-0212	3/8"	ST-0C(8)	1/4" Clips
U-0209	9/32"	U-0214	7/16"	ST-2R	5-7/8" Rail
U-0210	5/16"	U-0216	1/2"		
U-0211	11/32"	U-0218	9/16"		



TSU-016

6 Piece Standard Universal Socket Set, 12 Point, 1/4" to 9/16"

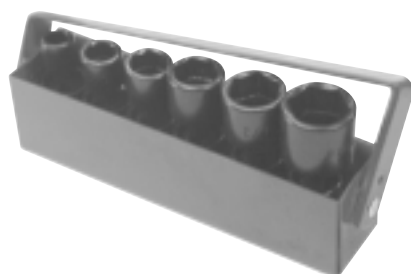
• Set consists of the following Part Numbers and sizes:

U-0108	1/4"	U-0114	7/16"	ST-0C(6)	1/4" Clips
U-0110	5/16"	U-0116	1/2"	ST-1R	4-3/8" Rail
U-0112	3/8"	U-0118	9/16"		

Standard Universal Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
U-0208	U-0108	1/4"	1-5/16"	13/64"	25/64"	1/2"
U-0209		9/32"	1-5/16"	7/32"	7/16"	1/2"
U-0210	U-0110	5/16"	1-5/16"	1/4"	29/64"	1/2"
U-0211		11/32"	1-5/16"	9/32"	1/2"	1/2"
U-0212	U-0112	3/8"	1-5/16"	9/32"	9/16"	1/2"
U-0214	U-0114	7/16"	1-11/32"	5/16"	5/8"	1/2"
U-0216	U-0116	1/2"	1-7/16"	3/8"	11/16"	1/2"
U-0218	U-0118	9/16"	1-1/2"	3/8"	13/16"	1/2"



TSUP-026S

6 Piece Standard Impact Universal Socket Set, 6 Point, 1/4" to 9/16"

• Set consists of the following Part Numbers and sizes:

UP-0208	1/4"	UP-0214	7/16"	ST-88	Tray
UP-0210	5/16"	UP-0216	1/2"		
UP-0212	3/8"	UP-0218	9/16"		

1/4" DRIVE SOCKETS AND SETS

Drive Tools
(SAE & Metric)

Standard Impact Universal Sockets, 6 Point



PART NO.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
				SOCKET END	HANDLE END
UP-0208	1/4"	1-27/64"	3/16"	13/32"	5/8"
UP-0210	5/16"	1-33/64"	7/32"	1/2"	5/8"
UP-0212	3/8"	1-19/32"	15/64"	9/16"	5/8"
UP-0214	7/16"	1-11/16"	17/64"	21/32"	5/8"
UP-0216	1/2"	1-49/64"	5/16"	23/32"	5/8"
UP-0218	9/16"	1-55/64"	11/32"	13/16"	5/8"



STI-0206S



6 Piece Standard Power Impact Socket Set, 6 Point, 1/4" to 9/16"

- Set consists of the following Part Numbers and sizes:

P-0208	1/4"	P-0214	7/16"	ST-49	Tray
P-0210	5/16"	P-0216	1/2"		
P-0212	3/8"	P-0218	9/16"		

STI-0106S



6 Piece Standard Power Impact Socket Set, 12 Point, 1/4" to 9/16"

- Set consists of the following Part Numbers and sizes:

P-0108	1/4"	P-0114	7/16"	ST-49	Tray
P-0110	5/16"	P-0116	1/2"		
P-0112	3/8"	P-0118	9/16"		



STI-0206LS



6 Piece Deep Power Impact Socket Set, 6 Point, 1/4" to 9/16"

- Set consists of the following Part Numbers and sizes:

P-0208L	1/4"	P-0214L	7/16"	ST-50	Tray
P-0210L	5/16"	P-0216L	1/2"		
P-0212L	3/8"	P-0218L	9/16"		

STI-0106LS



6 Piece Deep Power Impact Socket Set, 12 Point, 1/4" to 9/16"

- Set consists of the following Part Numbers and sizes:

P-0108L	1/4"	P-0114L	7/16"	ST-50	Tray
P-0110L	5/16"	P-0116L	1/2"		
P-0112L	3/8"	P-0118L	9/16"		

Standard Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
P-0208	P-0108	1/4"	57/64"	1/8"	3/8"	1/2"
P-0210	P-0110	5/16"	57/64"	9/64"	29/64"	1/2"
P-0212	P-0112	3/8"	57/64"	7/32"	35/64"	35/64"
P-0214	P-0114	7/16"	57/64"	7/32"	39/64"	35/64"
P-0216	P-0116	1/2"	57/64"	9/32"	11/16"	37/64"
P-0218	P-0118	9/16"	57/64"	21/64"	11/16"	41/64"

Deep Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
P-0208L	P-0108L	1/4"	2-1/64"	3/16"	3/8"	1/2"	7/32"	1-21/32"
P-0210L	P-0110L	5/16"	2-1/64"	7/32"	15/32"	1/2"	9/32"	1-21/32"
P-0212L	P-0112L	3/8"	2-1/64"	1/4"	35/64"	35/64"	11/32"	1-21/32"
P-0214L	P-0114L	7/16"	2-1/64"	9/32"	39/64"	35/64"	13/32"	1-21/32"
P-0216L	P-0116L	1/2"	2-1/64"	13/32"	11/16"	37/64"	15/32"	1-21/32"
P-0218L	P-0118L	9/16"	2-1/64"	1/2"	49/64"	41/64"	17/32"	1-21/32"



TSM-021S

21 Piece Metric Tool Set, 6 Point Sockets

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
E-0-2	1/4" x 2" Extension	TM-0214	1/4" x 14MM Socket
E-0-4	1/4" x 4" Extension	TM-0207L	1/4" x 7MM Deep Socket
HN-02P	1/4" Spin Handle	TM-0208L	1/4" x 8MM Deep Socket
TM-0206	1/4" x 6MM Socket	TM-0209L	1/4" x 9MM Deep Socket
TM-0207	1/4" x 7MM Socket	TM-0210L	1/4" x 10MM Deep Socket
TM-0208	1/4" x 8MM Socket	TM-0211L	1/4" x 11MM Deep Socket
TM-0209	1/4" x 9MM Socket	TM-0212L	1/4" x 12MM Deep Socket
TM-0210	1/4" x 10MM Socket	TM-0213L	1/4" x 13MM Deep Socket
TM-0211	1/4" x 11MM Socket	TR-3	1/4" Drive Ratchet
TM-0212	1/4" x 12MM Socket	UJ-0	1/4" Universal Joint
TM-0213	1/4" x 13MM Socket		

Drive Tools
(SAE & Metric)



STM-017L

7 Piece Deep Metric Socket Set, 12 Point, 6MM to 12MM

• Set consists of the following Part Numbers and sizes:

TM-0106L	6MM	TM-0109L	9MM	TM-0112L	12MM
TM-0107L	7MM	TM-0110L	10MM	ST-0C(7)	1/4" Clips
TM-0108L	8MM	TM-0111L	11MM	ST-1R	4-3/8" Rail



STM-0213S

13 Piece Standard Metric Socket Set, 6 Point, 4MM to 15MM

• Set consists of the following Part Numbers and sizes:

TM-0204	4MM	TM-0208	8MM	TM-0213	13MM
TM-0205	5MM	TM-0209	9MM	TM-0214	14MM
TM-0205.5	5.5MM	TM-0210	10MM	TM-0215	15MM
TM-0206	6MM	TM-0211	11MM	ST-83	Tray
TM-0207	7MM	TM-0212	12MM		

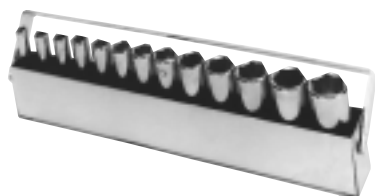


STM-0113S

13 Piece Standard Metric Socket Set, 12 Point, 4MM to 15MM

• Set consists of the following Part Numbers and sizes:

TM-0104	4MM	TM-0108	8MM	TM-0113	13MM
TM-0105	5MM	TM-0109	9MM	TM-0114	14MM
TM-0105.5	5.5MM	TM-0110	10MM	TM-0115	15MM
TM-0106	6MM	TM-0111	11MM	ST-83	Tray
TM-0107	7MM	TM-0112	12MM		



STM-0213LS

13 Piece Deep Metric Socket Set, 6 Point, 4MM to 15MM

• Set consists of the following Part Numbers and sizes:

TM-0204L	4MM	TM-0208L	8MM	TM-0213L	13MM
TM-0205L	5MM	TM-0209L	9MM	TM-0214L	14MM
TM-0205.5L	5.5MM	TM-0210L	10MM	TM-0215L	15MM
TM-0206L	6MM	TM-0211L	11MM	ST-82	Tray
TM-0207L	7MM	TM-0212L	12MM		



STM-0113LS

13 Piece Deep Metric Socket Set, 12 Point, 4MM to 15MM

• Set consists of the following Part Numbers and sizes:

TM-0104L	4MM	TM-0108L	8MM	TM-0113L	13MM
TM-0105L	5MM	TM-0109L	9MM	TM-0114L	14MM
TM-0105.5L	5.5MM	TM-0110L	10MM	TM-0115L	15MM
TM-0106L	6MM	TM-0111L	11MM	ST-82	Tray
TM-0107L	7MM	TM-0112L	12MM		

1/4" DRIVE METRIC SOCKETS AND SETS

Drive Tools
(SAE & Metric)

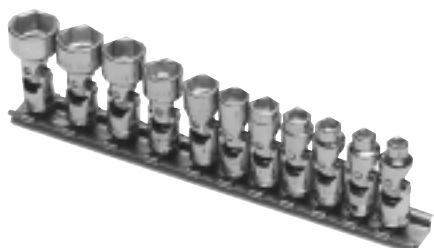
Standard Metric Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
TM-0204	TM-0104	4MM	22.86	4.32	7.09	12.70
TM-0205	TM-0105	5MM	22.86	4.32	8.13	12.70
TM-0205.5	TM-0105.5	5.5MM	22.86	4.75	8.89	12.70
TM-0206	TM-0106	6MM	22.86	5.54	9.50	12.70
TM-0207	TM-0107	7MM	22.86	5.54	10.72	12.70
TM-0208	TM-0108	8MM	22.86	6.35	11.99	12.70
TM-0209	TM-0109	9MM	22.86	7.14	13.18	13.18
TM-0210	TM-0110	10MM	22.86	7.14	14.10	14.10
TM-0211	TM-0111	11MM	22.86	9.53	15.67	15.67
TM-0212	TM-0112	12MM	22.86	9.53	16.94	14.61
TM-0213	TM-0113	13MM	22.86	9.53	18.47	15.37
TM-0214	TM-0114	14MM	22.86	9.53	19.71	16.64
TM-0215	TM-0115	15MM	22.86	9.53	20.62	16.64

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
TM-0204L	TM-0104L	4MM	51.18	4.75	7.09	12.70
TM-0205L	TM-0105L	5MM	51.18	5.16	8.13	12.70
TM-0205.5L	TM-0105.5L	5.5MM	51.18	5.16	8.89	12.70
TM-0206L	TM-0106L	6MM	51.18	5.54	9.50	12.70
TM-0207L	TM-0107L	7MM	51.18	5.54	10.72	12.70
TM-0208L	TM-0108L	8MM	51.18	6.35	11.99	12.70
TM-0209L	TM-0109L	9MM	51.18	7.14	13.18	13.18
TM-0210L	TM-0110L	10MM	51.18	7.14	14.10	14.10
TM-0211L	TM-0111L	11MM	51.18	9.53	15.67	15.67
TM-0212L	TM-0112L	12MM	51.18	10.16	16.94	14.61
TM-0213L	TM-0113L	13MM	51.18	10.16	18.47	15.37
TM-0214L	TM-0114L	14MM	51.18	11.10	19.71	16.64
TM-0215L	TM-0115L	15MM	51.18	11.10	20.62	16.64

Deep Metric Sockets, 6 and 12 Point

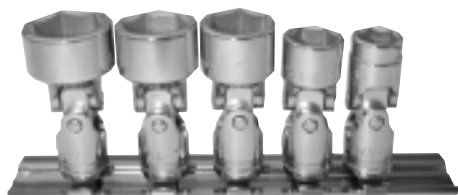


TSMU-0211

11 Piece Standard Metric Universal Socket Set, 6 Point, 5MM to 14MM

- Set consists of the following Part Numbers and sizes:

U-0205MM	5MM	U-0209MM	9MM	U-0214MM	14MM
U-0205.5MM	5.5MM	U-0210MM	10MM	ST-0C(11)	1/4" Clips
U-0206MM	6MM	U-0211MM	11MM	ST-4R	6-7/8" Rail
U-0207MM	7MM	U-0212MM	12MM		
U-0208MM	8MM	U-0213MM	13MM		



TSMU-025

5 Piece Standard Metric Universal Socket Set, 6 Point, 8MM to 14MM

- Set consists of the following Part Numbers and sizes:

U-0208MM	8MM	U-0213MM	13MM	ST-0C(5)	1/4" Clips
U-0210MM	10MM	U-0214MM	14MM	ST-1R	4-3/8" Rail
U-0212MM	12MM				



TSMU-017

7 Piece Standard Metric Universal Socket Set, 12 Point, 7MM to 13MM

- Set consists of the following Part Numbers and sizes:

U-0107MM	7MM	U-0110MM	10MM	U-0113MM	13MM
U-0108MM	8MM	U-0111MM	11MM	ST-0C(7)	1/4" Clips
U-0109MM	9MM	U-0112MM	12MM	ST-1R	4-3/8" Rail

Standard Metric Universal Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
U-0205MM		5MM	35.71	4.32	8.36	12.70
U-0205.5MM		5.5MM	35.71	4.75	8.89	12.70
U-0206MM		6MM	35.71	5.54	9.78	12.70
U-0207MM	U-0107MM	7MM	35.71	5.54	10.74	12.70
U-0208MM	U-0108MM	8MM	35.71	6.35	11.94	12.70
U-0209MM	U-0109MM	9MM	35.71	7.14	12.70	12.70
U-0210MM	U-0110MM	10MM	35.71	7.14	14.27	12.70
U-0211MM	U-0111MM	11MM	36.50	7.37	15.88	12.70
U-0212MM	U-0112MM	12MM	38.89	9.53	17.46	12.70
U-0213MM	U-0113MM	13MM	38.89	9.53	19.05	12.70
U-0214MM		14MM	38.89	9.53	20.64	12.70



STI-0212MS

12 Piece Standard Metric Power Impact Socket Set, 6 Point, 5MM to 15MM

- Set consists of the following Part Numbers and sizes:

PM-0205	5MM	PM-0209	9MM	PM-0214	14MM
PM-0205.5	5.5MM	PM-0210	10MM	PM-0215	15MM
PM-0206	6MM	PM-0211	11MM	ST-78	Tray
PM-0207	7MM	PM-0212	12MM		
PM-0208	8MM	PM-0213	13MM		



STI-0112MS

12 Piece Standard Metric Power Impact Socket Set, 12 Point, 5MM to 15MM

- Set consists of the following Part Numbers and sizes:

PM-0105	5MM	PM-0109	9MM	PM-0114	14MM
PM-0105.5	5.5MM	PM-0110	10MM	PM-0115	15MM
PM-0106	6MM	PM-0111	11MM	ST-78	Tray
PM-0107	7MM	PM-0112	12MM		
PM-0108	8MM	PM-0113	13MM		



STI-0212LMS

12 Piece Deep Metric Power Impact Socket Set, 6 Point, 5MM to 15MM

- Set consists of the following Part Numbers and sizes:

PM-0205L	5MM	PM-0209L	9MM	PM-0214L	14MM
PM-0205.5L	5.5MM	PM-0210L	10MM	PM-0215L	15MM
PM-0206L	6MM	PM-0211L	11MM	ST-79	Tray
PM-0207L	7MM	PM-0212L	12MM		
PM-0208L	8MM	PM-0213L	13MM		



STI-0112LMS

12 Piece Deep Metric Power Impact Socket Set, 12 Point, 5MM to 15MM

- Set consists of the following Part Numbers and sizes:

PM-0105L	5MM	PM-0109L	9MM	PM-0114L	14MM
PM-0105.5L	5.5MM	PM-0110L	10MM	PM-0115L	15MM
PM-0106L	6MM	PM-0111L	11MM	ST-79	Tray
PM-0107L	7MM	PM-0112L	12MM		
PM-0108L	8MM	PM-0113L	13MM		

Standard Metric Power Impact Sockets, 6 and 12 Point

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
PM-0205	PM-0105	5MM	22.86	2.79	8.12	12.70
PM-0205.5	PM-0105.5	5.5MM	22.86	2.79	8.89	12.70
PM-0206	PM-0106	6MM	22.86	3.05	9.50	12.70
PM-0207	PM-0107	7MM	22.86	3.56	10.72	12.70
PM-0208	PM-0108	8MM	22.86	3.56	11.99	12.70
PM-0209	PM-0109	9MM	22.86	4.07	13.18	13.18
PM-0210	PM-0110	10MM	22.86	4.60	14.10	14.10
PM-0211	PM-0111	11MM	22.86	5.46	15.67	15.67
PM-0212	PM-0112	12MM	22.86	6.09	16.94	14.60
PM-0213	PM-0113	13MM	22.86	6.76	18.47	15.37
PM-0214	PM-0114	14MM	22.86	7.52	20.62	20.62
PM-0215	PM-0115	15MM	22.86	8.33	21.44	21.44

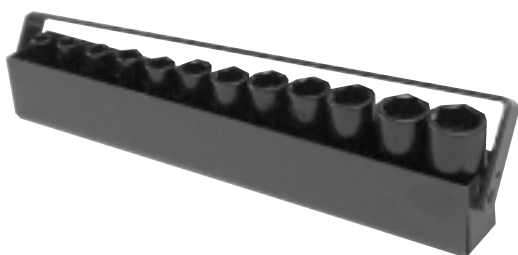
1/4" DRIVE METRIC AND SAE SOCKETS AND SETS

Deep Metric Power Impact Sockets, 6 and 12 Point



Drive Tools
(SAE & Metric)

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
PM-0205L	PM-0105L	5MM	51.18	4.75	8.12	12.70	4.50	42.47
PM-0205.5L	PM-0105.5L	5.5MM	51.18	4.75	8.89	12.70	4.50	42.47
PM-0206L	PM-0106L	6MM	51.18	4.75	9.50	12.70	5.16	42.47
PM-0207L	PM-0107L	7MM	51.18	5.38	10.72	12.70	5.99	42.47
PM-0208L	PM-0108L	8MM	51.18	5.54	11.99	12.70	6.88	42.47
PM-0209L	PM-0109L	9MM	51.18	5.94	13.18	13.18	7.95	42.47
PM-0210L	PM-0110L	10MM	51.18	5.94	14.10	14.10	9.09	42.47
PM-0211L	PM-0111L	11MM	51.18	8.36	15.67	15.67	10.06	42.47
PM-0212L	PM-0112L	12MM	51.18	10.16	16.94	14.60	10.85	42.47
PM-0213L	PM-0113L	13MM	51.18	10.16	18.47	15.37	11.63	42.47
PM-0214L	PM-0114L	14MM	51.18	7.52	20.62	20.62	12.83	42.47
PM-0215L	PM-0115L	15MM	51.18	8.33	21.44	21.44	13.74	42.47



TSMUP-0212S

12 Piece Metric Impact Universal Socket Set, 6 Point, 5MM to 15MM

• Set consists of the following Part Numbers and sizes:

UP-0205MM	5MM	UP-0209MM	9MM	UP-0214MM	14MM
UP-0205.5MM	5.5MM	UP-0210MM	10MM	UP-0215MM	15MM
UP-0206MM	6MM	UP-0211MM	11MM	ST-87	Tray
UP-0207MM	7MM	UP-0212MM	12MM		
UP-0208MM	8MM	UP-0213MM	13MM		

Metric Impact Universal Sockets, 6 Point



PART NO.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
				SOCKET END	HANDLE END
UP-0205MM	5MM	35.56	3.45	8.85	15.88
UP-0205.5MM	5.5MM	36.50	3.94	9.65	15.88
UP-0206MM	6MM	36.91	4.45	10.44	15.88
UP-0207MM	7MM	37.59	4.75	11.18	15.88
UP-0208MM	8MM	38.89	5.41	12.70	15.88
UP-0209MM	9MM	39.70	5.89	14.27	15.88
UP-0210MM	10MM	41.12	6.40	15.88	15.88
UP-0211MM	11MM	42.55	6.88	16.79	15.88
UP-0212MM	12MM	43.97	7.37	17.45	15.88
UP-0213MM	13MM	45.39	7.87	19.05	15.88
UP-0214MM	14MM	46.81	8.26	20.62	15.88
UP-0215MM	15MM	48.23	8.84	22.23	15.88

UPJ-0B

Power Universal Joint with Ball Retainer



• Ball Type Retainer. • Overall Length: 1-13/32". • Handle End Diameter: 5/8". • Not for Impact Use.



WARNING!

Use tool only for the job it was designed to do. Inspect for distortion, cracks, chips, wear, or mushrooming. Wear approved safety goggles when using hand tools.

Magnetic Sockets, 6 Point



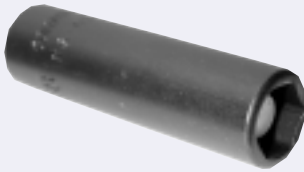
6 PT.	NOMINAL	OVERALL LENGTH	OUTSIDE DIAMETER		DEPTH TO MAGNET
			SOC. END	HDL. END	
M-0208	1/4"	15/16"	15/32"	15/32"	3/32"
M-0210	5/16"	15/16"	17/32"	17/32"	7/64"

Metric Magnetic Socket, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	OUTSIDE DIAMETER		DEPTH TO MAGNET
			SOC. END	HDL. END	
MM-0207	7MM	23.80	11.18	12.70	2.54

SAE and Metric Magnetic Spring Loaded Sockets, 6 Point



6 PT.	NOMINAL	O.A. LENGTH	BROACH DEPTH	DIAMETER		BOLT CLEAR DEPTH	DEPTH TO MAGNET
				SOC. END	HDL. END		
MS-0208R	1/4"	2"	3/16"	3/8"	1/2"	23/32"	1/16"
MS-0210R	5/16"	2"	7/32"	1/2"	1/2"	23/32"	3/32"
MS-0211R	11/32"	2"	1/4"	1/2"	1/2"	23/32"	1/8"
MS-0212R	3/8"	2"	1/4"	9/16"	9/16"	25/32"	5/32"
MS-0214R	7/16"	2"	9/32"	5/8"	5/8"	13/16"	11/64"
MMS-0207R	7MM	50.80	5.54	11.10	12.70	19.00	1.90
MMS-0208R	8MM	50.80	5.54	12.70	12.70	19.79	2.54
MMS-0210R	10MM	50.80	6.35	14.27	14.27	24.89	3.43
MMS-0211R	11MM	50.80	7.14	15.87	15.87	23.57	3.43

Metric Magnetic Self-Tapping Screw Sockets, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	OUTSIDE DIAMETER		DEPTH TO MAGNET
			SOC. END	HDL. END	
MMC-0207	7MM	23.80	11.18	12.70	2.54
MMC-0208	8MM	23.80	12.45	14.27	2.79
MMC-0210	10MM	23.80	16.00	17.45	3.43

TR-2HPFS

2 Piece Handle Ratchet Set



Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
TR-3H	Plastic Handle Ratchet
TRF-3H	Flex Head Plastic Handle Ratchet

TR-2NOHPFS

2 Piece Neon Orange Handle Ratchet Set



Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
TR-3NOH	Orange Handle Ratchet
TRF-3NOH	Flex Head Orange Handle Ratchet



WARNING!

Worn and dirty ratchet mechanism can cause slippage and breaking. Replace worn parts with authorized repair kits.

Plastic Handle Ratchets



PART NO.	HDL. COLOR	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
TR-3H	Blue	30	7/16"	1-1/16"	6-11/16"
TR-3NOH	Orange	30	7/16"	1-1/16"	6-11/16"

Flex Head Plastic Handle Ratchets



PART NO.	HDL. COLOR	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
TRF-3H	Blue	30	7/16"	1-1/16"	7-11/16"
TRF-3NOH	Orange	30	7/16"	1-1/16"	7-11/16"

TR-3

Ratchet



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
30	7/16"	1-1/16"	5"

TR-301

Industrial Finish Ratchet with Ball Retainer



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	OVERALL LENGTH
30	7/16"	1-1/16"	5"

TRF-3

Flex Head Ratchet



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
30	7/16"	1-1/16"	6"

1/4" DRIVE ATTACHMENTS AND SETS

HZ-863Q

1/4" Reversible Palm Ratchet



- Reversible ratchet with T-handle.
- Combines the advantages of a nut-driver with T-handle and a reversible ratchet.
- Enables both powerful and sensitive work.

RS-00

Ratchet Spinner

- Knob diameter: 7/16".
- Length: 15/16".



Rigid Spin Handles

HN-02P



HN-02PS



PART NO.	TYPE HANDLE	LENGTH
HN-02P	Rigid	5-15/16"
HN-02PS	Rigid (w/1/4" Female Sq. Dr. in handle)	6"

JA-SD14

Flexible Spin Handle

- Shank length: 3-7/8".
- Overall Length: 6-3/4".



JA-MF4

Flexible Extension

- Male drive: 1/4" Square.
- Female drive: 1/4" Square.
- Cable diameter: 1/4".
- Overall length: 4".



HS-016

Speeder

- Ball type retainer.
- Handle swing: 2-7/8".
- Shank length: 8-1/4".
- Overall length: 16".



E-0-5ST

5 Piece Extension Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
E-0-2	1/4" x 2" Extension
E-0-4	1/4" x 4" Extension
E-0-6	1/4" x 6" Extension
E-0-10	1/4" x 10" Extension
E-0-14	1/4" x 14" Extension

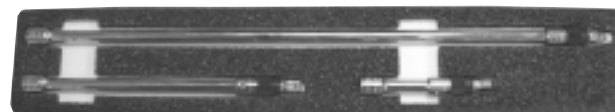
Extensions (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
E-0-2	2"	5/16"	31/64"
E-0-4	4"	5/16"	31/64"
E-0-6	6"	5/16"	31/64"
E-0-10	10"	5/16"	31/64"
E-0-14	14"	5/16"	31/64"
E-0-24	24"	5/16"	31/64"

E-0-3LKPFs

3 Piece Locking Extension Set



- Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
E-0-3LK	1/4" x 3-1/4" Extension
E-0-7LK	1/4" x 7-1/4" Extension
E-0-15LK	1/4" x 15-1/4" Extension

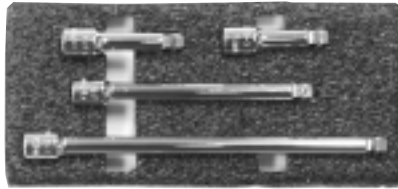
Extensions (Locking Type)



PART NO.	SHANK DIAMETER	LENGTH
E-0-3LK	5/16"	3-1/4"
E-0-7LK	5/16"	7-1/4"
E-0-15LK	5/16"	15-1/4"
E-0-25LK	5/16"	25"

E-0-4WDPFS

4 Piece Wobble Drive Extension Set



- Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
E-0-1WD	1/4" x 1-1/2" Wobble Dr. Ext.
E-0-2WD	1/4" x 2" Wobble Dr. Extension
E-0-4WD	1/4" x 4" Wobble Dr. Extension
E-0-6WD	1/4" x 6" Wobble Dr. Extension

Wobble Drive Extensions (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
E-0-1WD	1-1/2"	5/16"	31/64"
E-0-2WD	2"	5/16"	31/64"
E-0-4WD	4"	5/16"	31/64"
E-0-6WD	6"	5/16"	31/64"

EP-0-4BPFS

4 Piece Power Extension Set



- Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
EP-0-2B	1/4" x 2" Power Extension
EP-0-4B	1/4" x 4" Power Extension
EP-0-6B	1/4" x 6" Power Extension
UPJ-0B	1/4" Impact-Style Universal Joint w/Ball Retainer

Power Extensions (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
EP-0-2B	2"	5/16"	31/64"
EP-0-4B	4"	5/16"	31/64"
EP-0-6B	6"	5/16"	31/64"

UJ-0

Universal Joint

- Female square: 1/4". • Male square: 1/4". • Length: 1-7/16". • Handle Diameter: 1/2".



A-02

Adaptor

- Female Square: 1/4". • Male Square: 3/8". • Length: 63/64". • Outside Diameter: 31/64".



THE SIX MAJOR POINTS OF HAND TOOL SAFETY

1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

For working in tight spaces, see Cornwell's line of wrenches, torque wrenches and screwdrivers!





TS-219S

19 Piece Tool Set, 6 Point Sockets

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
E-2-3	3/8" x 3" Extension	T-2212L	3/8" x 3/8" Deep Socket
HF-210	3/8" Flex Handle	T-2214L	3/8" x 7/16" Deep Socket
JR-30	3/8" Drive Ratchet	T-2216L	3/8" x 1/2" Deep Socket
T-2212	3/8" x 3/8" Socket	T-2218L	3/8" x 9/16" Deep Socket
T-2214	3/8" x 7/16" Socket	T-2220L	3/8" x 5/8" Deep Socket
T-2216	3/8" x 1/2" Socket	T-2222L	3/8" x 11/16" Deep Socket
T-2218	3/8" x 9/16" Socket	T-2224L	3/8" x 3/4" Deep Socket
T-2220	3/8" x 5/8" Socket	T-2220SPA	3/8" x 5/8" Spark Plug Socket
T-2222	3/8" x 11/16" Socket	UJ-2	3/8" Universal Joint
T-2224	3/8" x 3/4" Socket		

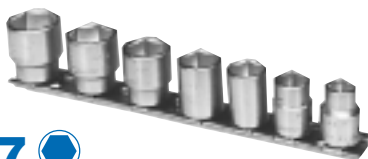


TS-216ST

16 Piece Combination Socket Set, 6 Point, 5/16" to 3/4"

Set consists of the following Part Numbers and sizes:

E-2-3	3" Extension	T-2216	1/2"	T-2224	3/4"	T-2218L	9/16"
T-2210	5/16"	T-2218	9/16"	T-2212L	3/8"	T-2220L	5/8"
T-2212	3/8"	T-2220	5/8"	T-2214L	7/16"	T-2222L	11/16"
T-2214	7/16"	T-2222	11/16"	T-2216L	1/2"	T-2224L	3/4"



ST-227

7 Piece Standard Socket Set, 6 Point, 3/8" to 3/4"

Set consists of the following Part Numbers and sizes:

T-2212	3/8"	T-2218	9/16"	T-2224	3/4"
T-2214	7/16"	T-2220	5/8"	ST-2C(7)	Clips
T-2216	1/2"	T-2222	11/16"	ST-4R	6-7/8" Rail

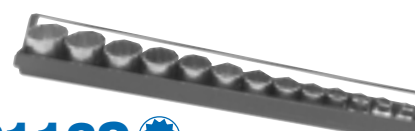


ST-217

7 Piece Standard Socket Set, 12 Point, 3/8" to 3/4"

Set consists of the following Part Numbers and sizes:

T-2112	3/8"	T-2118	9/16"	T-2124	3/4"
T-2114	7/16"	T-2120	5/8"	ST-2C(7)	Clips
T-2116	1/2"	T-2122	11/16"	ST-4R	6-7/8" Rail



ST-2213S

13 Piece Standard Socket Set, 6 Point, 1/4" to 1"

Set consists of the following Part Numbers and sizes:

T-2208	1/4"	T-2218	9/16"	T-2228	7/8"
T-2210	5/16"	T-2220	5/8"	T-2230	15/16"
T-2212	3/8"	T-2222	11/16"	T-2232	1"
T-2214	7/16"	T-2224	3/4"	ST-54	Tray
T-2216	1/2"	T-2226	13/16"		

ST-2113S

13 Piece Standard Socket Set, 12 Point, 1/4" to 1"

Set consists of the following Part Numbers and sizes:

T-2108	1/4"	T-2118	9/16"	T-2128	7/8"
T-2110	5/16"	T-2120	5/8"	T-2130	15/16"
T-2112	3/8"	T-2122	11/16"	T-2132	1"
T-2114	7/16"	T-2124	3/4"	ST-54	Tray
T-2116	1/2"	T-2126	13/16"		

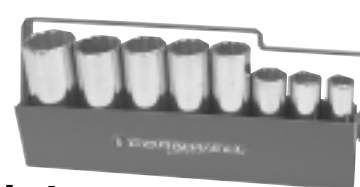


ST-228LS

8 Piece Deep Socket Set, 6 Point, 3/8" to 13/16"

Set consists of the following Part Numbers and sizes:

T-2212L	3/8"	T-2218L	9/16"	T-2224L	3/4"
T-2214L	7/16"	T-2220L	5/8"	T-2226L	13/16"
T-2216L	1/2"	T-2222L	11/16"	ST-53	Tray



ST-218LS

8 Piece Deep Socket Set, 12 Point, 3/8" to 13/16"

Set consists of the following Part Numbers and sizes:

T-2112L	3/8"	T-2118L	9/16"	T-2124L	3/4"
T-2114L	7/16"	T-2120L	5/8"	T-2126L	13/16"
T-2116L	1/2"	T-2122L	11/16"	ST-53	Tray



ST-2213LS

13 Piece Deep Socket Set, 6 Point, 1/4" to 1"

- Set consists of the following Part Numbers and sizes:

T-2208L 1/4"	T-2218L 9/16"	T-2228L 7/8"
T-2210L 5/16"	T-2220L 5/8"	T-2230L 15/16"
T-2212L 3/8"	T-2222L 11/16"	T-2232L 1"
T-2214L 7/16"	T-2224L 3/4"	ST-63 Tray
T-2216L 1/2"	T-2226L 13/16"	



ST-2113LS

13 Piece Deep Socket Set, 12 Point, 1/4" to 1"

- Set consists of the following Part Numbers and sizes:

T-2108L 1/4"	T-2118L 9/16"	T-2128L 7/8"
T-2110L 5/16"	T-2120L 5/8"	T-2130L 15/16"
T-2112L 3/8"	T-2122L 11/16"	T-2132L 1"
T-2114L 7/16"	T-2124L 3/4"	ST-63 Tray
T-2116L 1/2"	T-2126L 13/16"	

Standard Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	HANDLE END
T-2208	T-2108	1/4"	15/16"	1/8"	13/32"	11/16"
T-2210	T-2110	5/16"	15/16"	1/4"	15/32"	11/16"
T-2212	T-2112	3/8"	15/16"	9/32"	37/64"	11/16"
T-2214	T-2114	7/16"	15/16"	5/16"	43/64"	11/16"
T-2216	T-2116	1/2"	15/16"	11/32"	23/32"	23/32"
T-2218	T-2118	9/16"	31/32"	3/8"	13/16"	13/16"
T-2220	T-2120	5/8"	1-1/32"	25/64"	7/8"	3/4"
T-2222	T-2122	11/16"	1-1/16"	13/32"	15/16"	3/4"
T-2224	T-2124	3/4"	1-3/32"	7/16"	1"	13/16"
T-2226	T-2126	13/16"	1-1/8"	29/64"	1-1/8"	7/8"
T-2228	T-2128	7/8"	1-5/32"	1/2"	1-3/16"	15/16"
T-2230	T-2130	15/16"	1-7/32"	35/64"	1-1/4"	1"
T-2232	T-2132	1"	1-1/4"	9/16"	1-5/16"	1-1/16"

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	HANDLE END
T-2208L	T-2108L	1/4"	2-1/4"	1/8"	13/32"	11/16"
T-2210L	T-2110L	5/16"	2-1/4"	1/4"	15/32"	11/16"
T-2212L	T-2112L	3/8"	2-1/4"	9/32"	37/64"	11/16"
T-2214L	T-2114L	7/16"	2-1/4"	13/32"	43/64"	11/16"
T-2216L	T-2116L	1/2"	2-1/4"	13/32"	23/32"	23/32"
T-2218L	T-2118L	9/16"	2-3/4"	1/2"	13/16"	13/16"
T-2220L	T-2120L	5/8"	2-3/4"	9/16"	7/8"	7/8"
T-2222L	T-2122L	11/16"	2-3/4"	9/16"	15/16"	15/16"
T-2224L	T-2124L	3/4"	2-3/4"	21/32"	1"	1"
T-2226L	T-2126L	13/16"	2-3/4"	11/16"	1-1/8"	1-1/8"
T-2228L	T-2128L	7/8"	2-3/4"	3/4"	1-3/16"	1-3/16"
T-2230L	T-2130L	15/16"	2-3/4"	53/64"	1-7/64"	1-7/64"
T-2232L	T-2132L	1"	2-3/4"	53/64"	1-5/16"	1-5/16"

Deep Sockets, 6 and 12 Point



TSU-227ST

7 Piece Standard Universal Socket Set, 6 Point, 3/8" to 3/4"

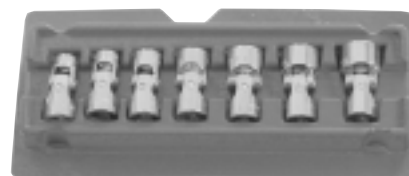


- Set consists of the following Part Numbers and sizes:

U-2212 3/8"	U-2218 9/16"	U-2224 3/4"
U-2214 7/16"	U-2220 5/8"	
U-2216 1/2"	U-2222 11/16"	

TSU-217ST

7 Piece Standard Universal Socket Set, 12 Point, 3/8" to 3/4"



- Set consists of the following Part Numbers and sizes:

U-2112 3/8"	U-2118 9/16"	U-2124 3/4"
U-2114 7/16"	U-2120 5/8"	
U-2116 1/2"	U-2122 11/16"	

Standard Universal Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
U-2212	U-2112	3/8"	1-21/32"	9/32"	35/64"	3/4"
U-2214	U-2114	7/16"	1-21/32"	5/16"	5/8"	3/4"
U-2216	U-2116	1/2"	1-23/32"	11/32"	23/32"	3/4"
U-2218	U-2118	9/16"	1-23/32"	3/8"	25/32"	3/4"
U-2220	U-2120	5/8"	1-13/16"	25/64"	7/8"	3/4"
U-2222	U-2122	11/16"	1-7/8"	13/32"	15/16"	3/4"
U-2224	U-2124	3/4"	1-29/32"	13/32"	1"	3/4"



Weatherhead Fitting Sockets



STEL-7

7 Piece Weatherhead Fitting Socket Set, 7/16" to 27/32"

- Set consists of the following Part Numbers and sizes:

EL-214	7/16"	EL-220	5/8"	EL-227	27/32"
EL-216	1/2"	EL-222	11/16"	ST-2C (7)	3/8" Clips
EL-218	9/16"	EL-224	3/4"	ST-5R	7-7/8" Rail

PART NO.	TUBING SIZE	NOMINAL	LENGTH	HANDLE DIAMETER
EL-214	3/16"	7/16"	1-1/16"	13/16"
EL-216	1/4"	1/2"	1-1/16"	15/16"
EL-218	5/16"	9/16"	1-1/4"	1"
EL-220	3/8"	5/8"	1-1/4"	1-1/16"
EL-222	1/2"	11/16"	1-7/16"	1-1/8"
EL-224	9/16"	3/4"	1-1/2"	1-1/4"
EL-227	11/16"	27/32"	1-5/8"	1-3/8"

Spark Plug Sockets, 6 Point



T-2220SPA
T-2226SP



T-2220SPXLA



U-2220LSPA
U-2226LSP



UP-2220LSPRA
UP-2226LSPR

PART NUMBER	DESCRIPTION	NOMINAL	MALE HEX	RUBBER INSERT	LENGTH	OUTSIDE DIAMETER	
						SOCKET END	HANDLE END
T-2220SPA	Standard	5/8"	3/4"	RL-20	2-15/32"	7/8"	7/8"
T-2220SPXLA	Extra Long	5/8"	—	RL-20	6"	7/8"	7/8"
T-2226SP	Standard	13/16"	3/4"	RL-60	2-7/16"	1-1/16"	27/32"
U-2220LSPA	Universal	5/8"	—	RL-20	3-5/16"	7/8"	3/4"
U-2226LSP	Universal	13/16"	—	RL-60	3-5/16"	1-1/16"	3/4"
UP-2220LSPRA	Power Impact Universal	5/8"	—	RL-20	3-5/8"	7/8"	1"
UP-2226LSPR	Power Impact Universal	13/16"	—	RL-60	3-11/16"	1-1/16"	1"

CFW-12PFS

12 Piece Open End Crowfoot Wrench Set

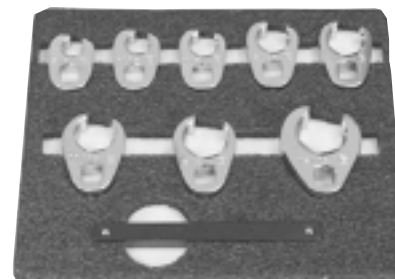


- Set consists of the following Part Numbers and sizes:

CFW-12	3/8"	CFW-20	5/8"	CFW-28	7/8"
CFW-14	7/16"	CFW-22	11/16"	CFW-30	15/16"
CFW-16	1/2"	CFW-24	3/4"	CFW-32	1"
CFW-18	9/16"	CFW-26	13/16"	SB-11	Bar

FCW-9PFS

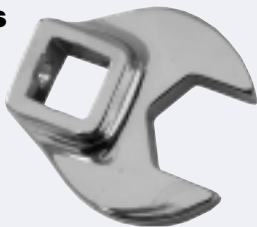
9 Piece Flare Nut Crowfoot Wrench Set, 3/8" to 13/16"



- Set consists of the following Part Numbers and sizes:

FCW-12	3/8"	FCW-18	9/16"	FCW-24	3/4"
FCW-14	7/16"	FCW-20	5/8"	FCW-26	13/16"
FCW-16	1/2"	FCW-22	11/16"	SB-8	Bar

Standard Open End Crowfoot Wrenches



PART NUMBER	NOMINAL	HEAD DIAMETER	LENGTH	OPEN END THICKNESS	TOTAL THICKNESS
CFW-12	3/8"	1-1/32"	1-1/8"	1/4"	7/16"
CFW-14	7/16"	1-1/32"	1-1/8"	1/4"	7/16"
CFW-16	1/2"	1-1/32"	1-1/8"	1/4"	7/16"
CFW-18	9/16"	1-5/16"	1-3/8"	9/32"	7/16"
CFW-20	5/8"	1-5/16"	1-3/8"	9/32"	7/16"
CFW-22	11/16"	1-5/16"	1-3/8"	9/32"	7/16"
CFW-24	3/4"	1-5/8"	1-5/8"	5/16"	7/16"
CFW-26	13/16"	1-5/8"	1-5/8"	5/16"	7/16"
CFW-28	7/8"	1-5/8"	1-5/8"	5/16"	7/16"
CFW-30	15/16"	1-15/16"	2"	7/16"	7/16"
CFW-32	1"	1-15/16"	2"	7/16"	7/16"

Drive Tools
(SAE & Metric)

PART NUMBER	NOMINAL	HEAD DIAMETER	LENGTH	THICKNESS	FLARE OPENING
FCW-12	3/8"	29/32"	1-13/32"	3/8"	1/4"
FCW-14	7/16"	31/32"	1-15/32"	3/8"	17/64"
FCW-16	1/2"	31/32"	1-15/32"	3/8"	21/64"
FCW-18	9/16"	1-3/32"	1-5/8"	7/16"	25/64"
FCW-20	5/8"	1-3/32"	1-5/8"	7/16"	29/64"
FCW-22	11/16"	1-9/32"	1-3/4"	1/2"	1/2"
FCW-24	3/4"	1-9/32"	1-3/4"	1/2"	9/16"
FCW-26	13/16"	1-19/32"	1-31/32"	9/16"	41/64"

Standard Flare Nut Crowfoot Wrenches, 6 Point



STI-228



8 Piece Standard Power Impact Socket Set, 6 Point, 5/16" to 3/4"

- Set consists of the following Part Numbers and sizes:

P-2210	5/16"	P-2218	9/16"	ST-2C (8)	3/8" Clips
P-2212	3/8"	P-2220	5/8"	ST-5R	7-7/8" Rail
P-2214	7/16"	P-2222	11/16"		
P-2216	1/2"	P-2224	3/4"		

STI-218



8 Piece Standard Power Impact Socket Set, 12 Point, 5/16" to 3/4"

- Set consists of the following Part Numbers and sizes:

P-2110	5/16"	P-2118	9/16"	ST-2C (8)	3/8" Clips
P-2112	3/8"	P-2120	5/8"	ST-5R	7-7/8" Rail
P-2114	7/16"	P-2122	11/16"		
P-2116	1/2"	P-2124	3/4"		



STI-228L



8 Piece Deep Power Impact Socket Set, 6 Point, 5/16" to 3/4"

- Set consists of the following Part Numbers and sizes:

P-2210L	5/16"	P-2218L	9/16"	ST-2C (8)	3/8" Clips
P-2212L	3/8"	P-2220L	5/8"	ST-5R	7-7/8" Rail
P-2214L	7/16"	P-2222L	11/16"		
P-2216L	1/2"	P-2224L	3/4"		

STI-218L



8 Piece Deep Power Impact Socket Set, 12 Point, 5/16" to 3/4"

- Set consists of the following Part Numbers and sizes:

P-2110L	5/16"	P-2118L	9/16"	ST-2C (8)	3/8" Clips
P-2112L	3/8"	P-2120L	5/8"	ST-5R	7-7/8" Rail
P-2114L	7/16"	P-2122L	11/16"		
P-2116L	1/2"	P-2124L	3/4"		





STI-227LLS

7 Piece Extra Deep Power Impact Socket Set, 6 Point, 3/8" to 3/4"

• Set consists of the following Part Numbers and sizes:

P-2212LL	3/8"	P-2218LL	9/16"	P-2224LL	3/4"
P-2214LL	7/16"	P-2220LL	5/8"	ST-42	Tray
P-2216LL	1/2"	P-2222LL	11/16"		



STI-217LLS

7 Piece Extra Deep Power Impact Socket Set, 12 Point, 3/8" to 3/4"

• Set consists of the following Part Numbers and sizes:

P-2112LL	3/8"	P-2118LL	9/16"	P-2124LL	3/4"
P-2114LL	7/16"	P-2120LL	5/8"	ST-42	Tray
P-2116LL	1/2"	P-2122LL	11/16"		

Standard Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END
P-2210	P-2110	5/16"	7/8"	9/64"	1/2"	11/16"
P-2212	P-2112	3/8"	7/8"	5/32"	19/32"	11/16"
P-2214	P-2114	7/16"	7/8"	7/32"	21/32"	3/4"
P-2216	P-2116	1/2"	15/16"	17/64"	3/4"	3/4"
P-2218	P-2118	9/16"	15/16"	21/64"	13/16"	13/16"
P-2220	P-2120	5/8"	1"	3/8"	29/32"	29/32"
P-2222	P-2122	11/16"	1"	3/8"	1"	1"
P-2224	P-2124	3/4"	1-1/16"	7/16"	1-1/16"	1-1/16"

Deep Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END	BOLT CLEARANCE DIAMETER	BOLT CLEARANCE DEPTH
P-2210L	P-2110L	5/16"	1-1/2"	9/64"	1/2"	11/16"	9/32"	1-1/32"
P-2212L	P-2112L	3/8"	1-1/2"	5/32"	19/32"	11/16"	21/64"	1-1/32"
P-2214L	P-2114L	7/16"	1-1/2"	7/32"	43/64"	3/4"	13/32"	1-1/32"
P-2216L	P-2116L	1/2"	1-1/2"	17/64"	3/4"	3/4"	29/64"	1-1/32"
P-2218L	P-2118L	9/16"	1-1/2"	21/64"	13/16"	13/16"	33/64"	1-1/32"
P-2220L	P-2120L	5/8"	1-1/2"	3/8"	29/32"	29/32"	37/64"	1-1/32"
P-2222L	P-2122L	11/16"	1-1/2"	3/8"	1"	1"	41/64"	1-1/32"
P-2224L	P-2124L	3/4"	1-1/2"	7/16"	1-1/16"	1-1/16"	45/64"	1-1/32"

Extra Deep Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END	BOLT CLEARANCE DIAMETER	BOLT CLEARANCE DEPTH
P-2212LL	P-2112LL	3/8"	2-1/8"	5/32"	19/32"	11/16"	21/64"	1-21/32"
P-2214LL	P-2114LL	7/16"	2-1/8"	7/32"	43/64"	3/4"	13/32"	1-21/32"
P-2216LL	P-2116LL	1/2"	2-1/8"	17/64"	3/4"	3/4"	29/64"	1-21/32"
P-2218LL	P-2118LL	9/16"	2-3/8"	21/64"	13/16"	13/16"	33/64"	1-29/32"
P-2220LL	P-2120LL	5/8"	2-3/8"	3/8"	29/32"	29/32"	37/64"	1-29/32"
P-2222LL	P-2122LL	11/16"	2-5/8"	3/8"	1"	1"	41/64"	2-5/32"
P-2224LL	P-2124LL	3/4"	2-5/8"	7/16"	1-1/16"	1-1/16"	45/64"	2-5/32"



TSI-216ST

16 Piece Combination Power Socket Set, 6 Point, 5/16" to 3/4"

• Set consists of the following Part Numbers and sizes:

EP-2-3	3" Extension	P-2216	1/2"	P-2224	3/4"	P-2218LL	9/16"
P-2210	5/16"	P-2218	9/16"	P-2212LL	3/8"	P-2220LL	5/8"
P-2212	3/8"	P-2220	5/8"	P-2214LL	7/16"	P-2222LL	11/16"
P-2214	7/16"	P-2222	11/16"	P-2216LL	1/2"	P-2224LL	3/4"

TSUP-227RS

7 Piece Standard Power Impact Universal Socket Set, 6 Point, 3/8" to 3/4"



• Set consists of the following Part Numbers and sizes:

UP-2212R	3/8"	UP-2218R	9/16"	UP-2224R	3/4"
UP-2214R	7/16"	UP-2220R	5/8"	ST-65	Tray
UP-2216R	1/2"	UP-2222R	11/16"		

TSUP-217RS

7 Piece Standard Power Impact Universal Socket Set, 12 Point, 3/8" to 3/4"

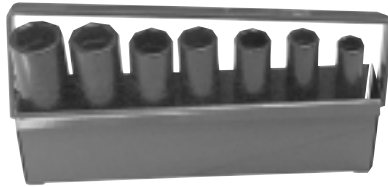


• Set consists of the following Part Numbers and sizes:

UP-2112R	3/8"	UP-2118R	9/16"	UP-2124R	3/4"
UP-2114R	7/16"	UP-2120R	5/8"	ST-65	Tray
UP-2116R	1/2"	UP-2122R	11/16"		

TSUP-227LRS

7 Piece Deep Power Impact Universal Socket Set, 6 Point, 3/8" to 3/4"



• Set consists of the following Part Numbers and sizes:

UP-2212LR	3/8"	UP-2218LR	9/16"	UP-2224LR	3/4"
UP-2214LR	7/16"	UP-2220LR	5/8"	ST-72	Tray
UP-2216LR	1/2"	UP-2222LR	11/16"		

TSUP-217LRS

7 Piece Deep Power Impact Universal Socket Set, 12 Point, 3/8" to 3/4"



• Set consists of the following Part Numbers and sizes:

UP-2112LR	3/8"	UP-2118LR	9/16"	UP-2124LR	3/4"
UP-2114LR	7/16"	UP-2120LR	5/8"	ST-72	Tray
UP-2116LR	1/2"	UP-2122LR	11/16"		

Standard Power Impact Universal Sockets, Ball Type, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SKT. END	HDL. END
UP-2212R	UP-2112R	3/8"	2"	13/64"	9/16"	1"
UP-2214R	UP-2114R	7/16"	2-1/8"	1/4"	21/32"	1"
UP-2216R	UP-2116R	1/2"	2-1/4"	1/4"	3/4"	1"
UP-2218R	UP-2118R	9/16"	2-3/8"	3/8"	13/16"	1"
UP-2220R	UP-2120R	5/8"	2-1/2"	3/8"	7/8"	1"
UP-2222R	UP-2122R	11/16"	2-9/16"	3/8"	1"	1"
UP-2224R	UP-2124R	3/4"	2-5/8"	7/16"	1-1/16"	1"

Deep Power Impact Universal Sockets, Ball Type, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SKT. END	HDL. END
UP-2212LR	UP-2112LR	3/8"	3"	13/64"	9/16"	1"
UP-2214LR	UP-2114LR	7/16"	3-1/16"	1/4"	21/32"	1"
UP-2216LR	UP-2116LR	1/2"	3-1/8"	1/4"	3/4"	1"
UP-2218LR	UP-2118LR	9/16"	3-3/16"	3/8"	13/16"	1"
UP-2220LR	UP-2120LR	5/8"	3-1/4"	3/8"	7/8"	1"
UP-2222LR	UP-2122LR	11/16"	3-5/16"	3/8"	1"	1"
UP-2224LR	UP-2124LR	3/4"	3-3/8"	7/16"	1-1/16"	1"

Power Universal Joints, Ball Type



M-2212

Magnetic Socket, 6 Point



PART NO.	RETAINER TYPE	OVERALL LENGTH	HANDLE END DIAMETER
UPJ-2SB*	Ball	1-15/16"	1"
UPJ-2SP	Pin	1-15/16"	1"

* Not for Impact Use.

NOMINAL	O.A. LENGTH	DIAMETER		DEPTH TO MAGNET
		SKT. END	HDL. END	
3/8"	1-1/8"	43/64"	3/4"	5/32"

SAE and Metric Magnetic Spring Loaded Sockets, 6 Point



6 PT.	NOMINAL	O.A. LENGTH	BROACH DEPTH	DIAMETER		BOLT CLEAR DEPTH	DEPTH TO MAGNET
				SOC. END	HDL. END		
MS-2214R	7/16"	2-1/4"	5/16"	3/4"	3/4"	31/32"	11/64"
MMS-2210R	10MM	57.15	6.35	16.00	19.05	24.51	3.43
MMS-2211R	11MM	57.15	7.92	19.05	19.05	24.46	3.43
MMS-2213R	13MM	57.15	8.18	20.62	20.62	27.86	3.91

TSM-219S

19 Piece Metric Tool Set, 6 Point Sockets

Set consists of the following:

PART NO.	DESC.	PART NO.	DESC.	PART NO.	DESC.
E-2-3	3" Extension	TM-2214	14MM Skt.	TM-2214L	14MM Dp Skt.
HF-210	Flex Handle	TM-2215	15MM Skt.	TM-2215L	15MM Dp Skt.
JR-30	Ratchet	TM-2217	17MM Skt.	TM-2217L	17MM Dp Skt.
T-2220SPA	5/8" Spark Plug Skt.	TM-2219	19MM Skt.	TM-2219L	19MM Dp Skt.
TM-2210	10MM Skt.	TM-2210L	10MM Dp Skt	UJ-2	Univ. Joint
TM-2211	11MM Skt.	TM-2211L	11MM Dp Skt		
TM-2213	13MM Skt.	TM-2213L	13MM Dp Skt		

STM-2207

7 Piece Standard Metric Socket Set, 6 Point, 20MM to 26MM

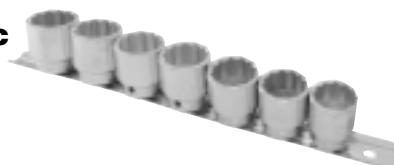


• Set consists of the following Part Numbers and sizes:

TM-2220	20MM	TM-2223	23MM	TM-2226	26MM
TM-2221	21MM	TM-2224	24MM	ST-2C(7)	Clips
TM-2222	22MM	TM-2225	25MM	ST-8R	Rail

STM-2107

7 Piece Standard Metric Socket Set, 12 Point, 20MM to 26MM

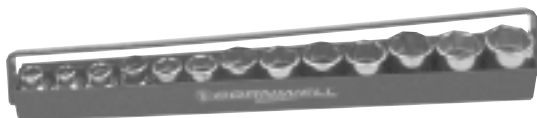


• Set consists of the following Part Numbers and sizes:

TM-2120	20MM	TM-2123	23MM	TM-2126	26MM
TM-2121	21MM	TM-2124	24MM	ST-2C(7)	Clips
TM-2122	22MM	TM-2125	25MM	ST-8R	Rail

STM-2213S

13 Piece Standard Metric Socket Set, 6 Point, 7MM to 19MM



• Set consists of the following Part Numbers and sizes:

TM-2207	7MM	TM-2212	12MM	TM-2217	17MM
TM-2208	8MM	TM-2213	13MM	TM-2218	18MM
TM-2209	9MM	TM-2214	14MM	TM-2219	19MM
TM-2210	10MM	TM-2215	15MM	ST-43	Tray
TM-2211	11MM	TM-2216	16MM		

STM-2113S

13 Piece Standard Metric Socket Set, 12 Point, 7MM to 19MM

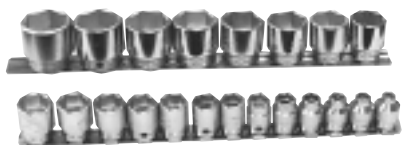


• Set consists of the following Part Numbers and sizes:

TM-2107	7MM	TM-2112	12MM	TM-2117	17MM
TM-2108	8MM	TM-2113	13MM	TM-2118	18MM
TM-2109	9MM	TM-2114	14MM	TM-2119	19MM
TM-2110	10MM	TM-2115	15MM	ST-43	Tray
TM-2111	11MM	TM-2116	16MM		

STM-2221

**21 Piece Standard Metric Socket Set,
6 Point, 6MM to 26MM**



• Set consists of the following Part Numbers and sizes:

TM-2206	6MM	TM-2214	14MM	TM-2222	22MM
TM-2207	7MM	TM-2215	15MM	TM-2223	23MM
TM-2208	8MM	TM-2216	16MM	TM-2224	24MM
TM-2209	9MM	TM-2217	17MM	TM-2225	25MM
TM-2210	10MM	TM-2218	18MM	TM-2226	26MM
TM-2211	11MM	TM-2219	19MM	ST-2C (21)	Clips
TM-2212	12MM	TM-2220	20MM	ST-8R (2)	Rail
TM-2213	13MM	TM-2221	21MM		

STM-2120

**20 Piece Standard Metric Socket Set,
12 Point, 7MM to 26MM**



• Set consists of the following Part Numbers and sizes:

TM-2107	7MM	TM-2115	15MM	TM-2122	22MM
TM-2108	8MM	TM-2116	16MM	TM-2123	23MM
TM-2109	9MM	TM-2117	17MM	TM-2124	24MM
TM-2110	10MM	TM-2118	18MM	TM-2125	25MM
TM-2111	11MM	TM-2119	19MM	TM-2126	26MM
TM-2112	12MM	TM-2120	20MM	ST-2C (20)	Clips
TM-2113	13MM	TM-2121	21MM	ST-8R (2)	Rail
TM-2114	14MM				

STM-2207L

**7 Piece
Deep Metric
Socket Set,
6 Point,
20MM to 26MM**



• Set consists of the following Part Numbers and sizes:

TM-2220L	20MM	TM-2224L	24MM	ST-2C (7)	Clips
TM-2221L	21MM	TM-2225L	25MM	ST-8R	Rail
TM-2222L	22MM	TM-2226L	26MM		
TM-2223L	23MM				

STM-2107L

**7 Piece
Deep Metric
Socket Set,
12 Point,
20MM to 26MM**

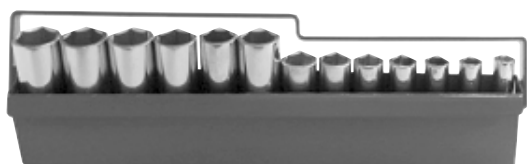


• Set consists of the following Part Numbers and sizes:

TM-2120L	20MM	TM-2124L	24MM	ST-2C (7)	Clips
TM-2121L	21MM	TM-2125L	25MM	ST-8R	Rail
TM-2122L	22MM	TM-2126L	26MM		
TM-2123L	23MM				

STM-2213LS

**13 Piece Deep Metric Socket Set,
6 Point, 7MM to 19MM**



• Set consists of the following Part Numbers and sizes:

TM-2207L	7MM	TM-2212L	12MM	TM-2217L	17MM
TM-2208L	8MM	TM-2213L	13MM	TM-2218L	18MM
TM-2209L	9MM	TM-2214L	14MM	TM-2219L	19MM
TM-2210L	10MM	TM-2215L	15MM	ST-44	Tray
TM-2211L	11MM	TM-2216L	16MM		

STM-2113LS

**13 Piece Deep Metric Socket Set,
12 Point, 7MM to 19MM**



• Set consists of the following Part Numbers and sizes:

TM-2107L	7MM	TM-2112L	12MM	TM-2117L	17MM
TM-2108L	8MM	TM-2113L	13MM	TM-2118L	18MM
TM-2109L	9MM	TM-2114L	14MM	TM-2119L	19MM
TM-2110L	10MM	TM-2115L	15MM	ST-44	Tray
TM-2111L	11MM	TM-2116L	16MM		

STM-2220L

20 Piece Deep Metric Socket Set, 6 Point, 7MM to 26MM

• Set consists of the following Part Numbers and sizes:



TM-2207L	7MM	TM-2213L	13MM	TM-2219L	19MM	TM-2225L	25MM
TM-2208L	8MM	TM-2214L	14MM	TM-2220L	20MM	TM-2226L	26MM
TM-2209L	9MM	TM-2215L	15MM	TM-2221L	21MM	ST-2C (20)	Clips
TM-2210L	10MM	TM-2216L	16MM	TM-2222L	22MM	ST-8R (2)	Rail
TM-2211L	11MM	TM-2217L	17MM	TM-2223L	23MM		
TM-2212L	12MM	TM-2218L	18MM	TM-2224L	24MM		

3/8" DRIVE METRIC SOCKETS AND SETS

TSM-2216ST

**16 Piece Metric
Socket Set,
6 Point,
10MM to 19MM**



• Set consists of the following Part Numbers and sizes:

E-2-3	3" Ext.	TM-2215	15MM	TM-2213L	13MM
TM-2210	10MM	TM-2217	17MM	TM-2214L	14MM
TM-2211	11MM	TM-2219	19MM	TM-2215L	15MM
TM-2212	12MM	TM-2210L	10MM	TM-2217L	17MM
TM-2213	13MM	TM-2212L	12MM	TM-2219L	19MM
TM-2214	14MM				

TSM-2116ST

**16 Piece Metric
Socket Set,
12 Point,
10MM to 19MM**



• Set consists of the following Part Numbers and sizes:

E-2-3	3" Ext.	TM-2115	15MM	TM-2113L	13MM
TM-2110	10MM	TM-2117	17MM	TM-2114L	14MM
TM-2111	11MM	TM-2119	19MM	TM-2115L	15MM
TM-2112	12MM	TM-2110L	10MM	TM-2117L	17MM
TM-2113	13MM	TM-2112L	12MM	TM-2119L	19MM
TM-2114	14MM				

Standard Metric Sockets, 6 and 12 Point



		OVERALL BROADCH			OUTSIDE DIAMETER	
6 PT.	12 PT.	NOMINAL	LENGTH	DEPTH	SOCKET END	HANDLE END
TM-2206		6MM	24.59	5.54	9.80	17.45
TM-2207	TM-2107	7MM	24.59	5.54	10.97	17.45
TM-2208	TM-2108	8MM	24.59	6.35	12.19	17.45
TM-2209	TM-2109	9MM	24.59	7.14	13.08	17.45
TM-2210	TM-2110	10MM	24.59	7.14	14.99	17.45
TM-2211	TM-2111	11MM	24.59	7.14	16.13	17.45
TM-2212	TM-2112	12MM	24.59	8.71	17.45	17.45
TM-2213	TM-2113	13MM	24.59	9.12	18.80	18.80
TM-2214	TM-2114	14MM	24.59	9.12	19.84	19.84
TM-2215	TM-2115	15MM	24.59	9.12	21.44	21.44
TM-2216	TM-2116	16MM	25.40	9.55	22.23	19.15
TM-2217	TM-2117	17MM	26.97	9.55	23.80	19.05
TM-2218	TM-2118	18MM	26.97	10.16	24.59	20.64
TM-2219	TM-2119	19MM	28.58	11.10	25.40	20.64
TM-2220	TM-2120	20MM	28.58	11.51	26.97	22.23
TM-2221	TM-2121	21MM	28.58	11.71	28.58	23.81
TM-2222	TM-2122	22MM	29.36	12.45	30.00	25.00
TM-2223	TM-2123	23MM	30.15	12.70	31.24	26.97
TM-2224	TM-2124	24MM	30.96	13.84	31.75	26.97
TM-2225	TM-2125	25MM	31.75	14.02	33.32	28.58
TM-2226	TM-2126	26MM	32.54	14.61	34.93	28.58

		OVERALL BROADCH			OUTSIDE DIAMETER	
6 PT.	12 PT.	NOMINAL	LENGTH	DEPTH	SOCKET END	HANDLE END
TM-2207L	TM-2107L	7MM	57.15	5.54	10.97	17.45
TM-2208L	TM-2108L	8MM	57.15	6.35	12.19	17.45
TM-2209L	TM-2109L	9MM	57.15	7.14	13.08	17.45
TM-2210L	TM-2110L	10MM	57.15	7.14	14.99	17.45
TM-2211L	TM-2111L	11MM	57.15	8.36	16.13	17.45
TM-2212L	TM-2112L	12MM	57.15	10.16	17.45	17.45
TM-2213L	TM-2113L	13MM	57.15	11.10	18.80	18.80
TM-2214L	TM-2114L	14MM	69.85	12.50	19.84	19.84
TM-2215L	TM-2115L	15MM	69.85	12.50	21.44	21.44
TM-2216L	TM-2116L	16MM	69.85	14.30	22.23	22.23
TM-2217L	TM-2117L	17MM	69.85	14.30	23.80	23.80
TM-2218L	TM-2118L	18MM	69.85	14.30	24.59	24.59
TM-2219L	TM-2119L	19MM	69.85	16.66	25.40	25.40
TM-2220L	TM-2120L	20MM	69.85	17.27	26.97	26.97
TM-2221L	TM-2121L	21MM	69.85	17.27	28.58	28.58
TM-2222L	TM-2122L	22MM	69.85	18.34	30.00	30.00
TM-2223L	TM-2123L	23MM	70.76	18.64	31.24	31.24
TM-2224L	TM-2124L	24MM	70.76	18.64	31.75	31.75
TM-2225L	TM-2125L	25MM	70.76	19.05	33.32	33.32
TM-2226L	TM-2126L	26MM	70.76	19.05	34.93	34.93

Deep Metric Sockets, 6 and 12 Point



TSMU-226ST

**6 Piece
Standard
Metric
Universal
Socket Set,
6 Point,
10MM to 17MM**



• Set consists of the following Part Numbers and sizes:

U-2210MM	10MM	U-2213MM	13MM	U-2215MM	15MM
U-2212MM	12MM	U-2214MM	14MM	U-2217MM	17MM

TSMU-2210

**10 Piece Standard Metric Universal
Socket Set, 6 Point, 10MM to 19MM**

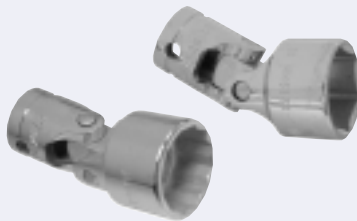


• Set consists of the following Part Numbers and sizes:

U-2210MM	10MM	U-2214MM	14MM	U-2218MM	18MM
U-2211MM	11MM	U-2215MM	15MM	U-2219MM	19MM
U-2212MM	12MM	U-2216MM	16MM	ST-2C (10)	Clips
U-2213MM	13MM	U-2217MM	17MM	ST-5R	Rail

Drive Tools
(SAE & Metric)

Standard Metric Universal Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END
U-2210MM	U-2110MM	10MM	45.24	7.14	13.97	19.05
U-2211MM		11MM	45.24	7.14	15.80	19.05
U-2212MM		12MM	46.81	8.71	17.46	19.05
U-2213MM		13MM	46.81	9.12	19.05	19.05
U-2214MM		14MM	46.81	9.12	19.84	19.05
U-2215MM		15MM	49.20	9.12	22.23	19.05
U-2216MM		16MM	49.20	9.55	22.23	19.05
U-2217MM		17MM	49.99	9.55	23.81	19.05
U-2218MM		18MM	49.99	10.16	23.81	19.05
U-2219MM		19MM	51.59	11.10	25.40	19.05

TSMU-225L

**5 Piece Long
Metric Universal
Socket Set,
6 Point,
10MM to 18MM**



• Set consists of the following Part Numbers and sizes:

U-2210MML	10MM	U-2215MML	15MM	ST-2C (5)	Clips
U-2213MML	13MM	U-2218MML	18MM	ST-2R	Rail
U-2214MML	14MM				

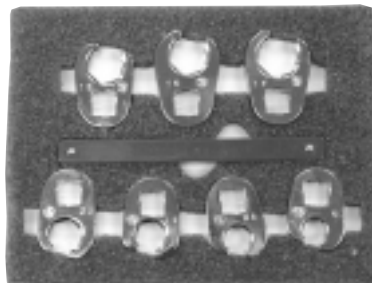
Deep Metric Universal Sockets, 6 Point



PART NO.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END
U-2210MML	10MM	62.69	7.14	14.48	19.05
U-2213MML	13MM	62.69	7.14	19.05	19.05
U-2214MML	14MM	62.69	8.71	19.84	19.05
U-2215MML	15MM	62.69	8.71	22.23	19.05
U-2218MML	18MM	62.69	10.31	23.81	19.05

FCWM-8PFS

**8 Piece Metric
Flare Nut
Crowfoot
Wrench Set,
6 Point,
9MM to 15MM**



• Set consists of the following in a polyfoam tray:

FCW-9MM	9MM	FCW-12MM	12MM	FCW-15MM	15MM
FCW-10MM	10MM	FCW-13MM	13MM	SB-8	Bar
FCW-11MM	11MM	FCW-14MM	14MM		

FCWM-15PFS

**15 Piece Metric Flare Nut Crowfoot
Wrench Set, 6 Point, 9MM to 22MM**



• Set consists of the following in a polyfoam tray:

FCW-9MM	9MM	FCW-14MM	14MM	FCW-19MM	19MM
FCW-10MM	10MM	FCW-15MM	15MM	FCW-20MM	20MM
FCW-11MM	11MM	FCW-16MM	16MM	FCW-21MM	21MM
FCW-12MM	12MM	FCW-17MM	17MM	FCW-22MM	22MM
FCW-13MM	13MM	FCW-18MM	18MM	SB-14	Bar

Metric Flare Nut Crowfoot Wrenches, 6 Point



PART NUMBER	NOMINAL	HEAD DIAMETER	LENGTH	THICKNESS	FLARE OPENING
FCW-9MM	9MM	23.02	35.72	9.53	6.25
FCW-10MM	10MM	23.02	35.72	9.53	6.25
FCW-11MM	11MM	23.02	35.72	9.53	7.26
FCW-12MM	12MM	24.61	37.31	9.53	7.26
FCW-13MM	13MM	24.61	37.31	9.53	9.27
FCW-14MM	14MM	27.78	41.28	11.11	10.26
FCW-15MM	15MM	27.78	41.28	11.11	11.15
FCW-16MM	16MM	27.78	41.28	11.11	12.34
FCW-17MM	17MM	32.54	44.58	12.70	12.95
FCW-18MM	18MM	32.54	44.58	12.70	14.55
FCW-19MM	19MM	32.54	44.58	12.70	14.55
FCW-20MM	20MM	40.48	50.01	14.29	15.62
FCW-21MM	21MM	40.48	50.01	14.29	16.26
FCW-22MM	22MM	40.48	50.01	14.29	17.27



WARNING!

FOR USE WITH IMPACT TOOLS: Use with impact wrenches and torque control tools according to their designed size and strength. DO NOT HOLD SPINNING SOCKET OR ACCESSORY.

STI-2212MS

12 Piece Standard Metric Power Impact Socket Set, 6 Point, 8MM to 19MM



- Set consists of the following Part Numbers and sizes:

PM-2208	8MM	PM-2213	13MM	PM-2217	17MM
PM-2209	9MM	PM-2214	14MM	PM-2218	18MM
PM-2210	10MM	PM-2215	15MM	PM-2219	19MM
PM-2211	11MM	PM-2216	16MM	ST-38	Tray
PM-2212	12MM				

STI-2112MS

12 Piece Standard Metric Power Impact Socket Set, 12 Point, 8MM to 19MM

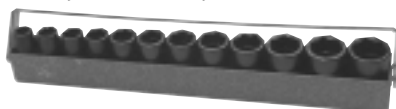


- Set consists of the following Part Numbers and sizes:

PM-2108	8MM	PM-2113	13MM	PM-2117	17MM
PM-2109	9MM	PM-2114	14MM	PM-2118	18MM
PM-2110	10MM	PM-2115	15MM	PM-2119	19MM
PM-2111	11MM	PM-2116	16MM	ST-38	Tray
PM-2112	12MM				

STI-2212LMS

12 Piece Deep Metric Power Impact Socket Set, 6 Point, 8MM to 19MM



- Set consists of the following Part Numbers and sizes:

PM-2208L	8MM	PM-2213L	13MM	PM-2217L	17MM
PM-2209L	9MM	PM-2214L	14MM	PM-2218L	18MM
PM-2210L	10MM	PM-2215L	15MM	PM-2219L	19MM
PM-2211L	11MM	PM-2216L	16MM	ST-39	Tray
PM-2212L	12MM				

STI-2112LMS

12 Piece Deep Metric Power Impact Socket Set, 12 Point, 8MM to 19MM

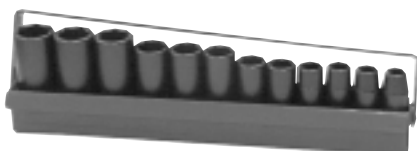


- Set consists of the following Part Numbers and sizes:

PM-2108L	8MM	PM-2113L	13MM	PM-2117L	17MM
PM-2109L	9MM	PM-2114L	14MM	PM-2118L	18MM
PM-2110L	10MM	PM-2115L	15MM	PM-2119L	19MM
PM-2111L	11MM	PM-2116L	16MM	ST-39	Tray
PM-2112L	12MM				

STI-2212LLMS

12 Piece Extra Deep Metric Power Impact Socket Set, 6 Point, 8MM to 19MM



- Set consists of the following Part Numbers and sizes:

PM-2208LL	8MM	PM-2213LL	13MM	PM-2217LL	17MM
PM-2209LL	9MM	PM-2214LL	14MM	PM-2218LL	18MM
PM-2210LL	10MM	PM-2215LL	15MM	PM-2219LL	19MM
PM-2211LL	11MM	PM-2216LL	16MM	ST-40	Tray
PM-2212LL	12MM				

STI-2112LLMS

12 Piece Extra Deep Metric Power Impact Socket Set, 12 Point, 8MM to 19MM



- Set consists of the following Part Numbers and sizes:

PM-2108LL	8MM	PM-2113LL	13MM	PM-2117LL	17MM
PM-2109LL	9MM	PM-2114LL	14MM	PM-2118LL	18MM
PM-2110LL	10MM	PM-2115LL	15MM	PM-2119LL	19MM
PM-2111LL	11MM	PM-2116LL	16MM	ST-40	Tray
PM-2112LL	12MM				

TSMI-220SF

20 Piece Metric Combination Power Impact Socket Set, 6 Point, 10MM to 19MM

- Set consists of the following in a polyfoam tray:

PM-2210	10MM	PM-2215	15MM	PM-2210LL	10MM	PM-2215LL	15MM
PM-2211	11MM	PM-2216	16MM	PM-2211LL	11MM	PM-2216LL	16MM
PM-2212	12MM	PM-2217	17MM	PM-2212LL	12MM	PM-2217LL	17MM
PM-2213	13MM	PM-2218	18MM	PM-2213LL	13MM	PM-2218LL	18MM
PM-2214	14MM	PM-2219	19MM	PM-2214LL	14MM	PM-2219LL	19MM



Drive Tools
(SAE & Metric)

THE SIX MAJOR POINTS OF HAND TOOL SAFETY

1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

Standard Metric Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
PM-2208	PM-2108	8MM	22.22	3.55	13.03	17.45
PM-2209	PM-2109	9MM	22.22	4.06	14.45	17.45
PM-2210	PM-2110	10MM	22.22	4.62	15.16	17.45
PM-2211	PM-2111	11MM	22.22	5.46	16.46	17.45
PM-2212	PM-2112	12MM	22.22	6.12	19.05	19.05
PM-2213	PM-2113	13MM	22.22	6.76	19.91	19.91
PM-2214	PM-2114	14MM	23.80	7.14	20.63	20.63
PM-2215	PM-2115	15MM	23.80	7.14	22.22	22.22
PM-2216	PM-2116	16MM	24.58	8.08	23.08	23.08
PM-2217	PM-2117	17MM	25.40	8.08	25.40	25.40
PM-2218	PM-2118	18MM	25.40	9.04	26.90	26.90
PM-2219	PM-2119	19MM	25.40	9.04	26.97	26.97

Deep Metric Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
PM-2208L	PM-2108L	8MM	38.09	3.56	13.03	17.45	7.11	26.21
PM-2209L	PM-2109L	9MM	38.09	4.06	14.45	17.45	8.08	26.21
PM-2210L	PM-2110L	10MM	38.09	4.62	15.16	17.45	9.09	26.21
PM-2211L	PM-2111L	11MM	38.09	5.46	16.46	17.45	10.06	26.21
PM-2212L	PM-2112L	12MM	38.09	6.12	19.05	19.05	10.85	26.21
PM-2213L	PM-2113L	13MM	38.09	6.76	19.91	19.91	12.29	26.21
PM-2214L	PM-2114L	14MM	38.09	8.36	20.62	20.62	13.08	26.21
PM-2215L	PM-2115L	15MM	38.09	8.36	22.22	22.22	13.77	26.21
PM-2216L	PM-2116L	16MM	38.09	9.55	22.09	22.09	14.55	26.21
PM-2217L	PM-2117L	17MM	38.09	9.55	25.40	25.40	16.00	26.21
PM-2218L	PM-2118L	18MM	38.09	10.16	26.97	26.97	16.94	26.21
PM-2219L	PM-2119L	19MM	38.09	11.10	26.97	26.97	17.91	26.21



WARNING!

FOR USE WITH IMPACT TOOLS: Use with impact wrenches and torque control tools according to their designed size and strength. DO NOT HOLD SPINNING SOCKET OR ACCESSORY.

3/8" DRIVE METRIC PWR IMPACT SOCKETS & UNIVERSAL SETS

Extra Deep Power Impact Sockets, 6 and 12 Point

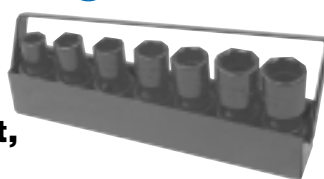


Drive Tools
(SAE & Metric)

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
PM-2208LL	PM-2108LL	8MM	53.97	3.56	13.03	17.45	7.11	42.08
PM-2209LL	PM-2109LL	9MM	53.97	4.06	14.45	17.45	8.08	42.08
PM-2210LL	PM-2110LL	10MM	53.97	4.62	15.16	17.45	9.09	42.08
PM-2211LL	PM-2111LL	11MM	53.97	5.46	16.46	17.45	10.06	42.08
PM-2212LL	PM-2112LL	12MM	53.97	6.12	19.05	19.05	10.85	42.08
PM-2213LL	PM-2113LL	13MM	53.97	6.76	19.91	19.91	12.29	42.08
PM-2214LL	PM-2114LL	14MM	60.32	8.36	20.62	20.62	13.08	48.43
PM-2215LL	PM-2115LL	15MM	60.32	8.36	22.22	22.22	13.77	48.43
PM-2216LL	PM-2116LL	16MM	60.32	9.55	23.09	23.09	14.55	48.43
PM-2217LL	PM-2117LL	17MM	66.66	9.55	25.40	25.40	16.00	54.77
PM-2218LL	PM-2118LL	18MM	66.66	10.16	26.97	26.97	16.94	54.77
PM-2219LL	PM-2119LL	19MM	66.66	11.10	26.97	26.97	17.91	54.77

TSMUP-227RS

7 Piece Standard Metric Power Impact Universal Socket Set, 6 Point, 10MM to 18MM

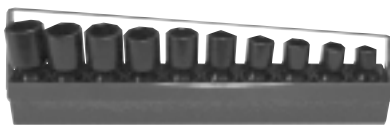


Set consists of the following Part Numbers and sizes:

UP-2210MMR	10MM	UP-2215MMR	15MM
UP-2212MMR	12MM	UP-2217MMR	17MM
UP-2213MMR	13MM	UP-2218MMR	18MM
UP-2214MMR	14MM	ST-66	Tray

TSMUP-2210RS

10 Piece Standard Metric Power Impact Universal Socket Set, 6 Point, 10MM to 19MM



Set consists of the following Part Numbers and sizes:

UP-2210MMR	10MM	UP-2216MMR	16MM
UP-2211MMR	11MM	UP-2217MMR	17MM
UP-2212MMR	12MM	UP-2218MMR	18MM
UP-2213MMR	13MM	UP-2219MMR	19MM
UP-2214MMR	14MM	ST-68	Tray
UP-2215MMR	15MM		

TSMUP-2110RS

10 Piece Standard Metric Power Impact Universal Socket Set, 12 Point, 10MM to 19MM



Set consists of the following Part Numbers and sizes:

UP-2110MMR	10MM	UP-2116MMR	16MM
UP-2111MMR	11MM	UP-2117MMR	17MM
UP-2112MMR	12MM	UP-2118MMR	18MM
UP-2113MMR	13MM	UP-2119MMR	19MM
UP-2114MMR	14MM	ST-68	Tray
UP-2115MMR	15MM		

TSMUP-2213RS

13 Piece Standard Metric Power Impact Universal Socket Set, 6 Point, 8MM to 22MM



Set consists of the following Part Numbers and sizes:

UP-2208MMR	8MM	UP-2215MMR	15MM
UP-2209MMR	9MM	UP-2216MMR	16MM
UP-2210MMR	10MM	UP-2217MMR	17MM
UP-2211MMR	11MM	UP-2218MMR	18MM
UP-2212MMR	12MM	UP-2219MMR	19MM
UP-2213MMR	13MM	UP-2222MMR	22MM
UP-2214MMR	14MM	ST-70	Tray

TSMUP-2113RS

13 Piece Standard Metric Power Impact Universal Socket Set, 12 Point, 8MM to 22MM

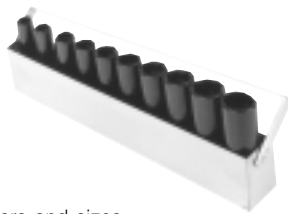


Set consists of the following Part Numbers and sizes:

UP-2108MMR	8MM	UP-2115MMR	15MM
UP-2109MMR	9MM	UP-2116MMR	16MM
UP-2110MMR	10MM	UP-2117MMR	17MM
UP-2111MMR	11MM	UP-2118MMR	18MM
UP-2112MMR	12MM	UP-2119MMR	19MM
UP-2113MMR	13MM	UP-2122MMR	22MM
UP-2114MMR	14MM	ST-70	Tray

TSMUP-2210LS

10 Piece Deep Metric Power Impact Universal Socket Set, 6 Point, 10MM to 19MM



Set consists of the following Part Numbers and sizes:

UP-2210MML	10MM	UP-2216MML	16MM
UP-2211MML	11MM	UP-2217MML	17MM
UP-2212MML	12MM	UP-2218MML	18MM
UP-2213MML	13MM	UP-2219MML	19MM
UP-2214MML	14MM	ST-71	Tray
UP-2215MML	15MM		

TSMUP-2110LS

10 Piece Deep Metric Power Impact Universal Socket Set, 12 Point, 10MM to 19MM



Set consists of the following Part Numbers and sizes:

UP-2110MML	10MM	UP-2116MML	16MM
UP-2111MML	11MM	UP-2117MML	17MM
UP-2112MML	12MM	UP-2118MML	18MM
UP-2113MML	13MM	UP-2119MML	19MM
UP-2114MML	14MM	ST-71	Tray
UP-2115MML	15MM		

Drive Tools
(SAE & Metric)

TSMUP-2213L

13 Piece Deep Metric Power Impact Universal Socket Set, 6 Point, 8MM to 22MM



Set consists of the following Part Numbers and sizes:

UP-2208MML	8MM	UP-2216MML	16MM
UP-2209MML	9MM	UP-2217MML	17MM
UP-2210MML	10MM	UP-2218MML	18MM
UP-2211MML	11MM	UP-2219MML	19MM
UP-2212MML	12MM	UP-2222MML	22MM
UP-2213MML	13MM	ST-2C (13)	Clips
UP-2214MML	14MM	ST-10R	Rail
UP-2215MML	15MM		

TSMUP-2113L

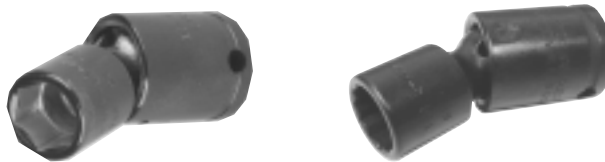
13 Piece Deep Metric Power Impact Universal Socket Set, 12 Point, 8MM to 22MM



Set consists of the following Part Numbers and sizes:

UP-2108MML	8MM	UP-2116MML	16MM
UP-2109MML	9MM	UP-2117MML	17MM
UP-2110MML	10MM	UP-2118MML	18MM
UP-2111MML	11MM	UP-2119MML	19MM
UP-2112MML	12MM	UP-2122MML	22MM
UP-2113MML	13MM	ST-2C (13)	Clips
UP-2114MML	14MM	ST-10R	Rail
UP-2115MML	15MM		

Standard Metric Power Impact Universal Sockets, 6 and 12 Point



		NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
6 PT.	12 PT.				SOCKET END	HANDLE END
UP-2208MMR	UP-2108MMR	8MM	49.20	5.31	13.49	30.15
UP-2209MMR	UP-2109MMR	9MM	50.01	5.31	14.27	30.15
UP-2210MMR	UP-2110MMR	10MM	50.80	6.35	15.88	30.15
UP-2211MMR	UP-2111MMR	11MM	53.98	6.35	16.79	30.15
UP-2212MMR	UP-2112MMR	12MM	55.58	6.76	18.29	30.15
UP-2213MMR	UP-2113MMR	13MM	57.15	8.36	19.05	30.15
UP-2214MMR	UP-2114MMR	14MM	60.33	8.36	20.62	30.15
UP-2215MMR	UP-2115MMR	15MM	61.93	8.36	22.23	30.15
UP-2216MMR	UP-2116MMR	16MM	63.50	9.53	23.80	30.15
UP-2217MMR	UP-2117MMR	17MM	65.41	9.53	25.40	30.15
UP-2218MMR	UP-2118MMR	18MM	66.04	9.53	25.40	30.15
UP-2219MMR	UP-2119MMR	19MM	67.31	11.10	26.97	30.15
UP-2222MMR	UP-2122MMR	22MM	69.85	11.10	31.75	30.15



WARNING!

FOR USE WITH IMPACT TOOLS: Use with impact wrenches and torque control tools according to their designed size and strength. DO NOT HOLD SPINNING SOCKET OR ACCESSORY.

3/8" DRIVE METRIC & SPECIAL SOCKETS, RATCHET SETS

Deep Metric Power Impact Universal Sockets, 6 and 12 Point



Drive Tools
(SAE & Metric)

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
UP-2208MML	UP-2108MML	8MM	75.41	5.31	13.49	30.15
UP-2209MML	UP-2109MML	9MM	75.82	5.31	14.27	30.15
UP-2210MML	UP-2110MML	10MM	76.20	5.31	15.88	30.15
UP-2211MML	UP-2111MML	11MM	77.77	6.35	16.79	30.15
UP-2212MML	UP-2112MML	12MM	78.49	6.76	18.29	30.15
UP-2213MML	UP-2113MML	13MM	79.38	6.76	19.05	30.15
UP-2214MML	UP-2114MML	14MM	80.98	8.36	20.62	30.15
UP-2215MML	UP-2115MML	15MM	81.76	8.36	22.23	30.15
UP-2216MML	UP-2116MML	16MM	82.55	9.53	23.80	30.15
UP-2217MML	UP-2117MML	17MM	84.15	9.53	25.40	30.15
UP-2218MML	UP-2118MML	18MM	84.94	9.53	25.40	30.15
UP-2219MML	UP-2119MML	19MM	85.73	11.10	26.97	30.15
UP-2222MML	UP-2122MML	22MM	88.90	12.45	31.75	30.15

Metric Magnetic Socket, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	OUTSIDE DIAMETER		DEPTH TO MAGNET
			SOC. END	HDL. END	
MM-2215	15MM	31.75	22.22	22.22	5.21

Metric Magnetic Self-Tapping Screw Sockets, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	OUTSIDE DIAMETER		DEPTH TO MAGNET
			SOC. END	HDL. END	
MMC-2210	10MM	30.15	17.40	19.05	4.70
MMC-2213	13MM	30.15	20.62	20.62	5.21



WARNING!

Use approved eye protection when using tools. Black power sockets are designed for use with power nut runners.



JR-3ST

3 Piece Ratchet Set

Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
JR-30	3/8" Drive Ratchet
JR-40	3/8" Drive Long Handled Ratchet
JRF-36	3/8" Drive Flex Ratchet

JRH-3ST

3 Piece Blue Plastic Handle Ratchet Set



Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
JR-30H	3/8" Drive Ratchet with handle
JRF-36H	3/8" Drive Flex Ratchet with handle
JRF-36SH	3/8" Drive Short Flex Ratchet with handle

JRH-3NOST

3 Piece Neon Orange Plastic Handle Ratchet Set



Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
JR-30NOH	3/8" Dr. Neon Orange Handle Ratchet
JRF-36NOH	3/8" Dr. Neon Orange Handle Flex Ratchet
JRF-36NOSH	3/8" Dr. Neon Orange Handle Short Flex Ratchet

TJS-3ST

3 Piece Ratchet Set

Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
TR-3	1/4" Drive Ratchet
JR-30	3/8" Drive Ratchet
SR-50	1/2" Drive Ratchet



TJF-2HPFS

2 Piece Blue Handle Flex Ratchet Set



Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
JRF-36H	3/8" Drive Plastic Handle Flex Ratchet
TRF-32H	3/8" Drive Plastic Handle Flex Ratchet

Ratchets



PART NO.	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
JR-30	30	9/16"	1-5/16"	7-1/8"
JR-40	30	9/16"	1-7/16"	10-1/4"
TR-32	30	7/16"	1-1/16"	5"

JRS-30

Stubby Ratchet



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
30	9/16"	1-5/16"	4-7/32"

JRFS-36

Stubby Flex Head Ratchet



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	FLEX HEAD	LENGTH
30	9/16"	1-5/16"	120°	4-47/64"

Flex Head Ratchets



PART NO.	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	FLEX HEAD	LENGTH
JRF-36	30	9/16"	1-5/16"	120°	12-3/8"
TRF-32	30	7/16"	1-1/16"	120°	6"

TJSB-3ST

3 Piece Ratchet Set (Industrial Finish)



Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
TR-301	1/4" Drive Industrial Finish Ratchet
JR-301	3/8" Drive Industrial Finish Ratchet
SR-501	1/2" Drive Industrial Finish Ratchet

TJF-2NOHPFS

2 Piece Neon Orange Handle Flex Ratchet Set



Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
JRF-36NOH	3/8" Drive Neon Orange Plastic Handle Flex Ratchet
TRF-32NOH	3/8" Drive Neon Orange Plastic Handle Flex Ratchet

JRFB-36

Bent Handle Ratchet

- Handle Bend: 25°.



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	FLEX HEAD	LENGTH
30	9/16"	1-5/16"	120°	9-7/8"

JR-301

Industrial Finish Ratchet with Ball Retainer



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
30	9/16"	1-5/16"	7-1/8"

Plastic Handle Ratchets

- 3 moving parts for minimum wear.
- 30 tooth ratcheting design allows new bite with only 12° handle swing.
- Polycarbonate slip & oil resistant handle.
- Especially contoured to fit comfortably in the hand during prolonged use.
- Thin head design for close clearance application.
- High polished nickel chrome plating to resist rust and long life.



PART NO.	HANDLE COLOR	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
JR-30H	Blue	30	9/16"	1-5/16"	8"
JR-30NOH	Orange	30	9/16"	1-5/16"	8"
JR-40H	Blue	30	9/16"	1-7/16"	11-25/32"
JR-40NOH	Orange	30	9/16"	1-7/16"	11-25/32"
TR-32H	Blue	30	7/16"	1-1/16"	6-11/16"
TR-32NOH	Orange	30	7/16"	1-1/16"	6-11/16"

3/8" DRIVE RATCHETS, HANDLES AND ATTACHMENTS

Drive Tools
(SAE & Metric)

Flex Head Plastic Handle Ratchets



- 3 moving parts for minimum wear.
- 30 tooth ratcheting design allows new bite with only 12° handle swing.
- Ball and dimple flex joint hold head in position preventing unwanted movement.
- Thin head design for close clearance application.
- High polished nickel chrome plating to resist rust and long life.

PART NO.	HANDLE COLOR	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	FLEX HEAD	LENGTH
JRF-36H	Blue	30	9/16"	1-5/16"	120°	12-3/8"
JRF-36NOH	Orange	30	9/16"	1-5/16"	120°	12-3/8"
JRF-36NOSH	Orange	30	9/16"	1-5/16"	120°	8-1/2"
JRF-36SH	Blue	30	9/16"	1-5/16"	120°	8-1/2"
TRF-32H	Blue	30	7/16"	1-1/16"	120°	7-11/16"
TRF-32NOH	Orange	30	7/16"	1-1/16"	120°	7-11/16"



WARNING!

Worn and dirty ratchet mechanisms can cause slippage and breaking. For longer life, clean and lubricate. Replace worn parts with authorized repair kits.

Rigid Spin Handles

HN-21P



HN-23PW



PART NO.	HANDLE TYPE	SHANK LENGTH	LENGTH
HN-21P	Rigid	1"	5-1/4"
HN-23PW	Rigid (Wobble Drive)	3"	7-3/4"

Adaptors



PART NO.	FEMALE SQUARE	MALE SQUARE	LENGTH	OUTSIDE DIAMETER
A-20	3/8"	1/4"	1"	11/16"
A-23	3/8"	1/2"	1-3/8"	11/16"

HS-217

Speeder



TYPE RETAINER	HANDLE LENGTH	SHANK SWING	LENGTH
Ball	16-3/4"	4"	8"

AP-23

Impact Adaptor (Snap Pin)



FEMALE DRIVE	MALE DRIVE	LENGTH	RETAINER ASSEMBLY	OUTSIDE DIAMETER
3/8"	1/2"	1-1/2"	Snap Pin	13/16"

HF-210

Flex Breaker Bar

- Type Retainer: Ball.
- Length: 10-1/4".



DL-21G

Drag Link Adjuster Socket



BLADE WIDTH	BLADE THICKNESS	LENGTH
37/64"	5/64"	1-3/8"

JA-MF8

Flexible Extension

- Male Drive: 3/8" Square.
- Female Drive: 3/8" Square.
- Length: 8".
- Cable Diameter: 5/16".



RS-20

Ratchet Spinner

- Knob Diameter: 1-1/2".
- Overall Length: 1-3/16".



UJ-2

Universal Joint



FEMALE SQUARE	MALE SQUARE	LENGTH	HANDLE DIAMETER
3/8"	3/8"	1-7/8"	3/4"

E-2-6ST

6 Piece Extension Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
E-2-2	3/8" x 2" Extension
E-2-3	3/8" x 3" Extension
E-2-3WD	3/8" x 3" Wobble Dr. Extension
E-2-6	3/8" x 6" Extension
E-2-9	3/8" x 9" Extension
E-2-12	3/8" x 12" Extension

EB-236ST

6 Piece Extension Set (Industrial Finish), 3/8" and 1/2" Drive



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
EB-2-3	3/8" x 3" Extension
EB-2-6	3/8" x 6" Extension
EB-2-12	3/8" x 12" Extension
EB-3-3	1/2" x 3" Extension
EB-3-5	1/2" x 5" Extension
EB-3-10	1/2" x 10" Extension

EP-2-5ST

5 Piece Power Extension Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
EP-2-3	3/8" x 3" Extension
EP-2-4	3/8" x 4" Extension
EP-2-6	3/8" x 6" Extension
EP-2-9	3/8" x 9" Extension
EP-2-12	3/8" x 12" Extension

E-2-3LKPFs

3 Piece Locking Extension Set



- Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
E-2-4LK	3/8" Dr. x 4-5/8" Locking Extension
E-2-7LK	3/8" Dr. x 7-5/8" Locking Extension
E-2-13LK	3/8" Dr. x 13-5/8" Locking Extension

Extensions (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
E-2-2	1-1/2"	31/64"	11/16"
E-2-3	3"	31/64"	11/16"
E-2-6	6"	31/64"	11/16"
E-2-9	9"	31/64"	11/16"
E-2-12	12"	31/64"	11/16"
E-2-18	18"	31/64"	11/16"
E-2-24	24"	31/64"	11/16"
E-2-30	30"	31/64"	11/16"

Wobble Drive Extensions (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
E-2-1WD	1-3/4"	31/64"	11/16"
E-2-3WD	3"	31/64"	11/16"
E-2-6WD	6"	31/64"	11/16"

Extensions (Industrial Finish) (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
EB-2-3*	3"	1/2"	11/16"
EB-2-6*	6"	1/2"	11/16"
EB-2-12*	12"	1/2"	11/16"

* Not For Power Use.

Power Extensions (Pin Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
EP-2-3	3"	1/2"	11/16"
EP-2-4	4"	1/2"	11/16"
EP-2-6	6"	1/2"	11/16"
EP-2-9	9"	1/2"	11/16"
EP-2-12	12"	1/2"	11/16"

Extensions (Locking Type)



PART NO.	SHANK DIAMETER.	LENGTH
E-2-4LK	1/2"	4-5/8"
E-2-7LK	1/2"	7-5/8"
E-2-13LK	1/2"	13-5/8"
E-2-19LK	1/2"	19-5/8"
E-2-25LK	1/2"	25-5/8"
E-2-31LK	1/2"	31-37/64"

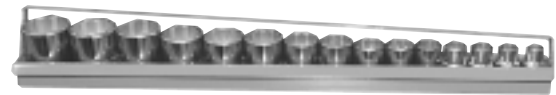


TS-316S

16 Piece Tool Set, 6 Point Sockets

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
E-3-5	1/2" x 5" Extension	T-3224	1/2" x 3/4" Socket
HF-315	1/2" x 15" Flex Handle	T-3226	1/2" x 13/16" Socket
SR-50	1/2" Drive Ratchet	T-3228	1/2" x 7/8" Socket
T-3214	1/2" x 7/16" Socket	T-3230	1/2" x 15/16" Socket
T-3216	1/2" x 1/2" Socket	T-3232	1/2" x 1" Socket
T-3218	1/2" x 9/16" Socket	T-3234	1/2" x 1-1/16" Socket
T-3220	1/2" x 5/8" Socket	T-3236	1/2" x 1-1/8" Socket
T-3222	1/2" x 11/16" Socket	T-3240	1/2" x 1-1/4" Socket

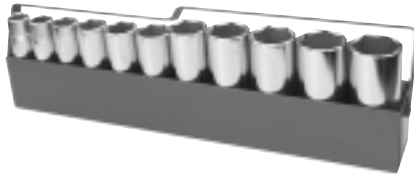


ST-3215S

15 Piece Standard Socket Set, 6 Point, 3/8" to 1-1/4"

• Set consists of the following Part Numbers and sizes:

T-3212	3/8"	T-3224	3/4"	T-3234	1-1/16"
T-3214	7/16"	T-3226	13/16"	T-3236	1-1/8"
T-3216	1/2"	T-3228	7/8"	T-3238	1-3/16"
T-3218	9/16"	T-3230	15/16"	T-3240	1-1/4"
T-3220	5/8"	T-3232	1"	ST-31	Tray
T-3222	11/16"				

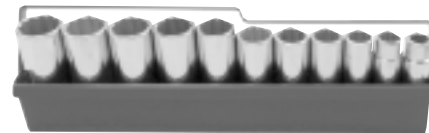


ST-3115S

15 Piece Standard Socket Set, 12 Point, 3/8" to 1-1/4"

• Set consists of the following Part Numbers and sizes:

T-3112	3/8"	T-3124	3/4"	T-3134	1-1/16"
T-3114	7/16"	T-3126	13/16"	T-3136	1-1/8"
T-3116	1/2"	T-3128	7/8"	T-3138	1-3/16"
T-3118	9/16"	T-3130	15/16"	T-3140	1-1/4"
T-3120	5/8"	T-3132	1"	ST-31	Tray
T-3122	11/16"				

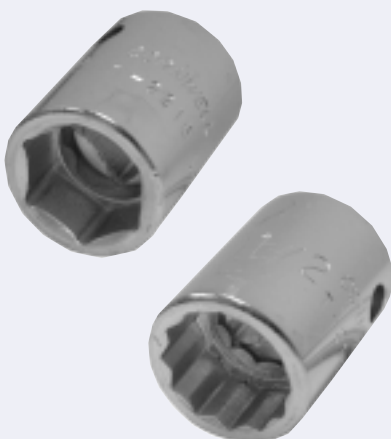


ST-3211LS

11 Piece Deep Socket Set, 6 Point, 1/2" to 1-1/8"

• Set consists of the following Part Numbers and sizes:

T-3216L	1/2"	T-3224L	3/4"	T-3232L	1"
T-3218L	9/16"	T-3226L	13/16"	T-3234L	1-1/16"
T-3220L	5/8"	T-3228L	7/8"	T-3236L	1-1/8"
T-3222L	11/16"	T-3230L	15/16"	ST-33	Tray



ST-3111LS

11 Piece Deep Socket Set, 12 Point, 1/2" to 1-1/8"

• Set consists of the following Part Numbers and sizes:

T-3116L	1/2"	T-3124L	3/4"	T-3132L	1"
T-3118L	9/16"	T-3126L	13/16"	T-3134L	1-1/16"
T-3120L	5/8"	T-3128L	7/8"	T-3136L	1-1/8"
T-3122L	11/16"	T-3130L	15/16"	ST-33	Tray

Standard Sockets, 6 and 12 Point

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END
T-3212	T-3112	3/8"	1-1/2"	1/4"	37/64"	7/8"
T-3214	T-3114	7/16"	1-1/2"	9/32"	43/64"	7/8"
T-3216	T-3116	1/2"	1-1/2"	5/16"	3/4"	7/8"
T-3218	T-3118	9/16"	1-1/2"	3/8"	53/64"	7/8"
T-3220	T-3120	5/8"	1-1/2"	13/32"	57/64"	57/64"
T-3222	T-3122	11/16"	1-1/2"	13/32"	1"	1"
T-3224	T-3124	3/4"	1-1/2"	7/16"	1-1/16"	1-1/16"
T-3226	T-3126	13/16"	1-5/8"	29/64"	1-1/8"	1-1/8"
T-3228	T-3128	7/8"	1-5/8"	1/2"	1-3/16"	1-3/16"
T-3230	T-3130	15/16"	1-11/16"	17/32"	1-5/16"	1-5/16"
T-3232	T-3132	1"	1-11/16"	9/16"	1-3/8"	1-3/16"
T-3234	T-3134	1-1/16"	1-3/4"	21/32"	1-7/16"	1-3/16"
T-3236	T-3136	1-1/8"	1-15/16"	3/4"	1-1/2"	1-17/64"
T-3238	T-3138	1-3/16"	1-15/16"	13/16"	1-5/8"	1-3/8"
T-3240	T-3140	1-1/4"	2"	55/64"	1-11/16"	1-7/16"
	T-3142	1-5/16"	2"	55/64"	1-3/4"	1-1/2"
	T-3148	1-1/2"	2-1/4"	55/64"	2"	1-5/8"

1/2" DRIVE SOCKETS AND SETS

Deep Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
					SOCKET END	HANDLE END
T-3216L	T-3116L	1/2"	3-1/4"	7/16"	3/4"	7/8"
T-3218L	T-3118L	9/16"	3-1/4"	31/64"	13/16"	7/8"
T-3220L	T-3120L	5/8"	3-1/4"	9/16"	57/64"	57/64"
T-3222L	T-3122L	11/16"	3-1/4"	9/16"	1"	1"
T-3224L	T-3124L	3/4"	3-1/4"	21/32"	1-1/16"	1-1/16"
T-3226L	T-3126L	13/16"	3-1/4"	11/16"	1-1/8"	1-1/8"
T-3228L	T-3128L	7/8"	3-1/2"	3/4"	1-3/16"	1-3/16"
T-3230L	T-3130L	15/16"	3-1/2"	13/16"	1-5/16"	1-5/16"
T-3232L	T-3132L	1"	3-1/2"	13/16"	1-3/8"	1-3/8"
T-3234L	T-3134L	1-1/16"	3-1/2"	15/16"	1-7/16"	1-7/16"
T-3236L	T-3136L	1-1/8"	3-1/2"	63/64"	1-1/2"	1-1/2"
	T-3140L	1-1/4"	3-1/2"	1-1/8"	1-11/16"	1-11/16"

Drive Tools
(SAE & Metric)

STDPS-8S

8 Piece Drain Plug Socket Set



- Set consists of the following Part Numbers and sizes:

DPS-308	1/4"	DPS-314	7/16"	DPS-320	5/8"
DPS-309	9/32"	DPS-316	1/2"	ST-3C(8)	1/2" Clips
DPS-310	5/16"	DPS-318	9/16"	ST-5R	7-7/8" Rail
DPS-312	3/8"				

Drain Plug Sockets



PART NO.	NOMINAL	OVERALL LENGTH	HANDLE END DIAMETER
DPS-308	1/4"	1-7/16"	7/8"
DPS-309	9/32"	1-7/16"	7/8"
DPS-310	5/16"	1-7/16"	7/8"
DPS-312	3/8"	1-7/16"	7/8"
DPS-314	7/16"	1-7/16"	7/8"
DPS-316	1/2"	1-7/16"	7/8"
DPS-318	9/16"	1-7/16"	7/8"
DPS-320	5/8"	1-7/16"	7/8"

STI-329

9 Piece Standard Power Impact Socket Set, 6 Point, 3/8" to 7/8"



- Set consists of the following Part Number and sizes:

P-3212	3/8"	P-3220	5/8"	P-3228	7/8"
P-3214	7/16"	P-3222	11/16"	ST-3C(9)	1/2" Clips
P-3216	1/2"	P-3224	3/4"	ST-8R	10-3/8" Rail
P-3218	9/16"	P-3226	13/16"		

STI-319

9 Piece Standard Power Impact Socket Set, 12 Point, 3/8" to 7/8"



- Set consists of the following Part Number and sizes:

P-3112	3/8"	P-3120	5/8"	P-3128	7/8"
P-3114	7/16"	P-3122	11/16"	ST-3C(9)	1/2" Clips
P-3116	1/2"	P-3124	3/4"	ST-8R	10-3/8" Rail
P-3118	9/16"	P-3126	13/16"		

STI-3215S

15 Piece Standard Power Impact Socket Set, 6 Point, 3/8" to 1-1/4"



- Set consists of the following Part Numbers and sizes:

P-3212	3/8"	P-3220	5/8"	P-3228	7/8"	P-3236	1-1/8"
P-3214	7/16"	P-3222	11/16"	P-3230	15/16"	P-3238	1-3/16"
P-3216	1/2"	P-3224	3/4"	P-3232	1"	P-3240	1-1/4"
P-3218	9/16"	P-3226	13/16"	P-3234	1-1/16"	ST-36	Metal Tray

STI-324L1S

4 Piece Deep Power Impact Socket Set, 6 Point, 1-1/16" to 1-1/4"



- Set consists of the following Part Numbers and sizes:

P-3234L	1-1/16"	P-3238L	1-3/16"	ST-90	Tray
P-3236L	1-1/8"	P-3240L	1-1/4"		

STI-324L2S

4 Piece Deep Power Impact Socket Set, 6 Point, 1-5/16" to 1-1/2"



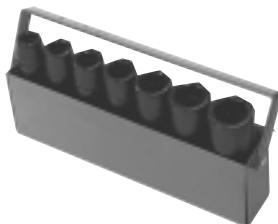
- Set consists of the following Part Numbers and sizes:

P-3242L	1-5/16"	P-3246L	1-7/16"	ST-91	Tray
P-3244L	1-3/8"	P-3248L	1-1/2"		

The Choice of Professionals®

STI-327LS

7 Piece Deep Power Impact Socket Set, 6 Point, 3/8" to 3/4"

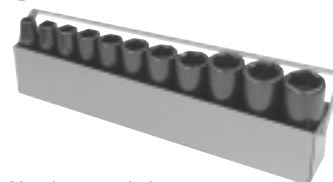


• Set consists of the following Part Numbers and sizes:

P-3212L	3/8"	P-3218L	9/16"	P-3224L	3/4"
P-3214L	7/16"	P-3220L	5/8"	ST-92	Tray
P-3216L	1/2"	P-3222L	11/16"		

STI-3211LS

11 Piece Deep Power Impact Socket Set, 6 Point, 3/8" to 1"



• Set consists of the following Part Numbers and sizes:

P-3212L	3/8"	P-3220L	5/8"	P-3228L	7/8"
P-3214L	7/16"	P-3222L	11/16"	P-3230L	15/16"
P-3216L	1/2"	P-3224L	3/4"	P-3232L	1"
P-3218L	9/16"	P-3226L	13/16"	ST-89	Tray

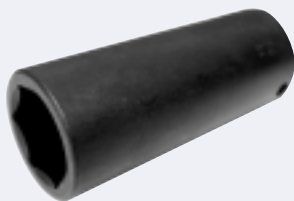
Drive Tools
(SAE & Metric)

Standard Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END
P-3212	P-3112	3/8"	1-1/2"	5/32"	5/8"	7/8"
P-3214	P-3114	7/16"	1-1/2"	7/32"	23/32"	7/8"
P-3216	P-3116	1/2"	1-1/2"	17/64"	13/16"	15/16"
P-3218	P-3118	9/16"	1-1/2"	21/64"	57/64"	15/16"
P-3220	P-3120	5/8"	1-1/2"	3/8"	61/64"	1"
P-3222	P-3122	11/16"	1-1/2"	3/8"	1-1/16"	1-1/16"
P-3224	P-3124	3/4"	1-1/2"	7/16"	1-5/32"	1-5/32"
P-3226	P-3126	13/16"	1-1/2"	29/64"	1-1/4"	1-1/4"
P-3228	P-3128	7/8"	1-1/2"	1/2"	1-5/16"	1-5/16"
P-3230		15/16"	1-3/4"	17/32"	1-13/32"	1-13/32"
P-3232		1"	1-3/4"	35/64"	1-7/16"	1-7/16"
P-3234		1-1/16"	2"	5/8"	1-9/16"	1-9/16"
P-3236		1-1/8"	2"	21/32"	1-21/32"	1-21/32"
P-3238		1-3/16"	2"	21/32"	1-11/16"	1-11/16"
P-3240		1-1/4"	2"	3/4"	1-25/32"	1-25/32"
P-3242		1-5/16"	2"	3/4"	1-7/8"	1-7/8"
P-3244		1-3/8"	2"	3/4"	2"	2"
P-3246		1-7/16"	2"	3/4"	2"	2"
P-3248		1-1/2"	2-1/8"	55/64"	2-1/8"	2-1/8"

Deep Power Impact Sockets, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SKT END	OUTSIDE DIAMETER HDL END	BOLT CLEARANCE DIAMETER	BOLT CLEARANCE DEPTH
P-3212L	3/8"	3-1/4"	7/32"	41/64"	7/8"	21/64"	2-5/8"
P-3214L	7/16"	3-1/4"	7/32"	23/32"	7/8"	13/32"	2-5/8"
P-3216L	1/2"	3-1/4"	17/64"	13/16"	15/16"	15/32"	2-5/8"
P-3218L	9/16"	3-1/4"	21/64"	7/8"	15/16"	33/64"	2-5/8"
P-3220L	5/8"	3-1/4"	3/8"	61/64"	1"	37/64"	2-5/8"
P-3222L	11/16"	3-1/4"	3/8"	1-1/16"	1-1/16"	5/8"	2-5/8"
P-3224L	3/4"	3-1/4"	7/16"	1-5/32"	1-5/32"	45/64"	2-5/8"
P-3226L	13/16"	3-1/4"	29/64"	1-1/4"	1-1/4"	49/64"	2-5/8"
P-3228L	7/8"	3-1/2"	1/2"	1-5/16"	1-5/16"	53/64"	2-7/8"
P-3230L	15/16"	3-1/2"	35/64"	1-13/32"	1-13/32"	55/64"	2-7/8"
P-3232L	1"	3-1/2"	35/64"	1-7/16"	1-7/16"	15/16"	2-7/8"
P-3234L	1-1/16"	3-1/2"	5/8"	1-9/16"	1-9/16"	1"	2-7/8"
P-3236L	1-1/8"	3-1/2"	21/32"	1-21/32"	1-21/32"	1-5/64"	2-7/8"
P-3238L	1-3/16"	3-1/2"	21/32"	1-11/16"	1-11/16"	1-1/8"	2-7/8"
P-3240L	1-1/4"	3-1/2"	3/4"	1-25/32"	1-25/32"	1-3/16"	2-7/8"
P-3242L	1-5/16"	3-1/2"	3/4"	1-7/8"	1-7/16"	1-1/4"	2-7/8"
P-3244L	1-3/8"	3-1/2"	3/4"	2"	1-9/16"	1-21/64"	2-7/8"
P-3246L	1-7/16"	3-1/2"	3/4"	2"	1-9/16"	1-3/8"	2-7/8"
P-3248L	1-1/2"	3-1/2"	27/32"	2-1/8"	1-11/16"	1-3/8"	2-7/8"



WARNING!

FOR USE WITH IMPACT TOOLS: Use with impact wrenches and torque control tools according to their designed size and strength. DO NOT HOLD SPINNING SOCKET OR ACCESSORY.

STI-325XLS

5 Piece Extra Deep Power Impact Socket Set, 6 Point, 1/2" to 3/4"



• Set consists of the following Part Numbers and sizes:

P-3216XL	1/2"	P-3220XL	5/8"	P-3224XL	3/4"
P-3218XL	9/16"	P-3222XL	11/16"	ST-81	Tray

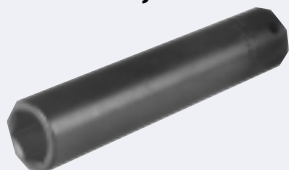
Standard Surface Drive Sockets, 6 Point



PART NO.	NOM.	O/L	BROACH DEPTH	OUTSIDE DIAMETER	
				SKT END	HDL END
S-3216	1/2"	1-1/2"	3/8"	25/32"	15/16"
S-3218	9/16"	1-1/2"	7/16"	55/64"	15/16"

Drive Tools
(SAE & Metric)

Extra Deep Power Impact Sockets, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
				SKT END	HDL END	DIAMETER	DEPTH
P-3216XL	1/2"	5"	3/8"	13/16"	15/16"	15/32"	4-5/8"
P-3218XL	9/16"	5"	3/8"	57/64"	15/16"	17/32"	4-5/8"
P-3220XL	5/8"	5"	3/8"	31/32"	1"	37/64"	4-5/8"
P-3222XL	11/16"	5"	3/8"	1-1/16"	1-1/16"	41/64"	4-5/8"
P-3224XL	3/4"	5"	7/16"	1-5/32"	1-5/32"	45/64"	4-5/8"

Jacobs Engine Brake Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
	P-3120LJB	5/8"	5"	5/8"	15/16"	15/16"	39/64"	4-3/8"
P-3220LJB		5/8"	5"	5/8"	15/16"	15/16"	9/16"	4-3/8"

STI-3310

10 Piece Power Impact Socket Set, 8 Point, 3/8" to 1"



• Set consists of the following Part Numbers and sizes:

P-3312	3/8"	P-3320	5/8"	P-3328	7/8"
P-3314	7/16"	P-3322	11/16"	P-3332	1"
P-3316	1/2"	P-3324	3/4"	ST-8R	Rail
P-3318	9/16"	P-3326	13/16"	ST-3C(10)	1/2" Clips

Standard Power Impact Sockets, 8 Point



PART NO.	NOM.	O/L	BROACH DEPTH	OUTSIDE DIAMETER	
				SKT END	HDL END
P-3312	3/8"	1-1/2"	5/32"	23/32"	7/8"
P-3314	7/16"	1-1/2"	7/32"	13/16"	15/16"
P-3316	1/2"	1-1/2"	17/64"	59/64"	1"
P-3318	9/16"	1-1/2"	21/64"	1"	1"
P-3320	5/8"	1-1/2"	3/8"	1-1/8"	1-1/8"
P-3322	11/16"	1-1/2"	7/16"	1-3/16"	1-3/16"
P-3324	3/4"	1-1/2"	7/16"	1-5/16"	1-5/16"
P-3326	13/16"	1-1/2"	29/64"	1-7/16"	1-7/16"
P-3328	7/8"	1-1/2"	1/2"	1-1/2"	1-1/2"
P-3332	1"	1-1/2"	3/4"	1-3/4"	1-3/4"

TSUP-325RS

5 Piece Standard Power Impact Universal Socket Set, 6 Point, 1/2" to 3/4"

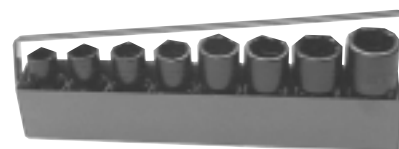


• Set consists of the following Part Numbers and sizes:

UP-3216R	1/2"	UP-3220R	5/8"	UP-3224R	3/4"
UP-3218R	9/16"	UP-3222R	11/16"	ST-59	Tray

TSUP-328RS

8 Piece Standard Power Impact Universal Socket Set, 6 Point, 1/2" to 15/16"



• Set consists of the following Part Numbers and sizes:

UP-3216R	1/2"	UP-3222R	11/16"	UP-3228R	7/8"
UP-3218R	9/16"	UP-3224R	3/4"	UP-3230R	15/16"
UP-3220R	5/8"	UP-3226R	13/16"	ST-57	Tray

1/2" DRIVE UNIVERSALS, SET AND METRIC SOCKET SETS

Drive Tools
(SAE & Metric)

Standard Impact Universal Sockets, Ball Type, 6 Point



PART NO.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE SOCKET END	DIAMETER HANDLE END
UP-3216R	1/2"	2-27/64"	13/64"	13/16"	1-3/16"
UP-3218R	9/16"	2-35/64"	1/4"	7/8"	1-3/16"
UP-3220R	5/8"	2-43/64"	7/32"	15/16"	1-3/16"
UP-3222R	11/16"	2-51/64"	3/8"	1"	1-3/16"
UP-3224R	3/4"	2-59/64"	13/32"	1-1/8"	1-3/16"
UP-3226R	13/16"	2-59/64"	13/32"	1-3/16"	1-3/16"
UP-3228R	7/8"	2-59/64"	15/32"	1-5/16"	1-3/16"
UP-3230R	15/16"	3-11/64"	19/32"	1-3/8"	1-3/16"

TSUP-325LRS



5 Piece Deep Power Impact Universal Socket Set, 6 Point, 1/2" to 3/4"



• Set consists of the following Part Numbers and sizes:

UP-3216LR	1/2"	UP-3220LR	5/8"	UP-3224LR	3/4"
UP-3218LR	9/16"	UP-3222LR	11/16"	ST-56	Tray

Deep Power Impact Universal Sockets, Ball Type, 6 Point



PART NO.	NOMINAL	OVERALL LENGTH	BROACH DEPTH
UP-3216LR	1/2"	3-21/32"	1/4"
UP-3218LR	9/16"	3-13/16"	9/32"
UP-3220LR	5/8"	3-15/16"	5/16"
UP-3222LR	11/16"	4-3/32"	11/32"
UP-3224LR	3/4"	4-1/4"	3/8"

Power Universal Joints, Ball Type



PART NO.	RETAINER TYPE	OVERALL LENGTH	HANDLE END DIAMETER
UPJ-3S	Pin	2-7/16"	1-3/16"
UPJ-3SB*	Ball	2-7/16"	1-3/16"

* Not for Impact Use!

STM-3210



10 Piece Standard Metric Socket Set, 6 Point, 10MM to 19MM



• Set consists of the following Part Numbers and sizes:

TM-3210	10MM	TM-3214	14MM	TM-3218	18MM
TM-3211	11MM	TM-3215	15MM	TM-3219	19MM
TM-3212	12MM	TM-3216	16MM	ST-3C(10)	1/2" Clips
TM-3213	13MM	TM-3217	17MM	ST-8R	Rail

STM-3110



10 Piece Standard Metric Socket Set, 12 Point, 10MM to 19MM



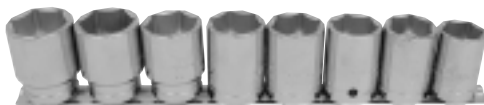
• Set consists of the following Part Numbers and sizes:

TM-3110	10MM	TM-3114	14MM	TM-3118	18MM
TM-3111	11MM	TM-3115	15MM	TM-3119	19MM
TM-3112	12MM	TM-3116	16MM	ST-3C(10)	1/2" Clips
TM-3113	13MM	TM-3117	17MM	ST-8R	Rail

STM-328



8 Piece Standard Metric Socket Set, 6 Point, 20MM to 27MM



• Set consists of the following Part Numbers and sizes:

TM-3220	20MM	TM-3224	24MM	ST-3C(8)	1/2" Clips
TM-3221	21MM	TM-3225	25MM	ST-8R	Rail
TM-3222	22MM	TM-3226	26MM		
TM-3223	23MM	TM-3227	27MM		

STM-318



8 Piece Standard Metric Socket Set, 12 Point, 20MM to 27MM



• Set consists of the following Part Numbers and sizes:

TM-3120	20MM	TM-3124	24MM	ST-3C(8)	1/2" Clips
TM-3121	21MM	TM-3125	25MM	ST-8R	Rail
TM-3122	22MM	TM-3126	26MM		
TM-3123	23MM	TM-3127	27MM		

STM-3210LS

**10 Piece Deep Metric Socket Set,
6 Point, 10MM to 19MM**



Set consists of the following Part Numbers and sizes:

TM-3210L	10MM	TM-3214L	14MM	TM-3218L	18MM
TM-3211L	11MM	TM-3215L	15MM	TM-3219L	19MM
TM-3212L	12MM	TM-3216L	16MM	ST-77	Tray
TM-3213L	13MM	TM-3217L	17MM		

STM-3110LS

**10 Piece Deep Metric Socket Set,
12 Point, 10MM to 19MM**



Set consists of the following Part Numbers and sizes:

TM-3110L	10MM	TM-3114L	14MM	TM-3118L	18MM
TM-3111L	11MM	TM-3115L	15MM	TM-3119L	19MM
TM-3112L	12MM	TM-3116L	16MM	ST-77	Tray
TM-3113L	13MM	TM-3117L	17MM		

STM-3213L

**13 Piece Deep Metric Socket Set, 6 Point,
20MM to 32MM**



Set consists of the following Part Numbers and sizes:

TM-3220L	20MM	TM-3225L	25MM	TM-3230L	30MM
TM-3221L	21MM	TM-3226L	26MM	TM-3231L	31MM
TM-3222L	22MM	TM-3227L	27MM	TM-3232L	32MM
TM-3223L	23MM	TM-3228L	28MM	ST-3C(13)	1/2" Clips
TM-3224L	24MM	TM-3229L	29MM	ST-6R(2)	Rails

STM-3113L

**13 Piece Deep Metric Socket Set, 12 Point,
20MM to 32MM**



Set consists of the following Part Numbers and sizes:

TM-3120L	20MM	TM-3125L	25MM	TM-3130L	30MM
TM-3121L	21MM	TM-3126L	26MM	TM-3131L	31MM
TM-3122L	22MM	TM-3127L	27MM	TM-3132L	32MM
TM-3123L	23MM	TM-3128L	28MM	ST-3C(13)	1/2" Clips
TM-3124L	24MM	TM-3129L	29MM	ST-6R(2)	Rails

STM-3223L

**23 Piece Deep Metric Socket Set,
6 Point,
10MM to 32MM**



Set consists of the following Part Numbers and sizes:

TM-3210L	10MM	TM-3219L	19MM	TM-3227L	27MM
TM-3211L	11MM	TM-3220L	20MM	TM-3228L	28MM
TM-3212L	12MM	TM-3221L	21MM	TM-3229L	29MM
TM-3213L	13MM	TM-3222L	22MM	TM-3230L	30MM
TM-3214L	14MM	TM-3223L	23MM	TM-3231L	31MM
TM-3215L	15MM	TM-3224L	24MM	TM-3232L	32MM
TM-3216L	16MM	TM-3225L	25MM	ST-3C(23)	Clips
TM-3217L	17MM	TM-3226L	26MM	ST-10R(2)	Rails
TM-3218L	18MM				

Standard Metric Sockets, 6 and 12 Point



		NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
6 PT.	12 PT.				SOCKET END	HANDLE END
TM-3210	TM-3110	10MM	38.10	6.35	15.60	22.23
TM-3211	TM-3111	11MM	38.10	7.14	17.78	22.23
TM-3212	TM-3112	12MM	38.10	7.62	18.16	22.23
TM-3213	TM-3113	13MM	38.10	7.92	19.43	22.23
TM-3214	TM-3114	14MM	38.10	8.71	21.21	22.23
TM-3215	TM-3115	15MM	38.10	9.53	22.23	22.23
TM-3216	TM-3116	16MM	38.10	10.31	22.23	22.23
TM-3217	TM-3117	17MM	38.10	11.10	24.38	24.38
TM-3218	TM-3118	18MM	38.10	11.89	25.40	25.40
TM-3219	TM-3119	19MM	38.10	12.70	26.97	26.97
TM-3220	TM-3120	20MM	38.10	13.08	26.97	26.97
TM-3221	TM-3121	21MM	41.28	13.08	28.58	28.58
TM-3222	TM-3122	22MM	41.28	13.49	30.15	30.15
TM-3223	TM-3123	23MM	41.28	13.89	31.24	31.24
TM-3224	TM-3124	24MM	42.85	15.09	31.75	31.75
TM-3225	TM-3125	25MM	42.85	15.88	33.32	28.27
TM-3226	TM-3126	26MM	44.45	16.66	34.93	28.96
TM-3227	TM-3127	27MM	44.45	17.45	36.50	30.23
	TM-3128	28MM	49.20	16.26	37.80	31.24
	TM-3131	31MM	49.20	17.81	42.85	36.07

Deep Metric Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END HANDLE END	
TM-3210L	TM-3110L	10MM	82.55	9.53	15.62	22.23
TM-3211L	TM-3111L	11MM	82.55	9.53	17.78	22.23
TM-3212L	TM-3112L	12MM	82.55	11.10	18.16	22.23
TM-3213L	TM-3113L	13MM	82.55	11.89	19.43	22.23
TM-3214L	TM-3114L	14MM	82.55	13.08	21.21	22.23
TM-3215L	TM-3115L	15MM	82.55	13.49	21.95	21.95
TM-3216L	TM-3116L	16MM	82.55	14.30	22.23	22.23
TM-3217L	TM-3117L	17MM	82.55	14.30	24.38	24.38
TM-3218L	TM-3118L	18MM	82.55	14.30	25.40	25.40
TM-3219L	TM-3119L	19MM	82.55	16.66	26.97	26.97
TM-3220L	TM-3120L	20MM	82.55	17.27	26.97	26.97
TM-3221L	TM-3121L	21MM	82.55	17.27	28.58	28.58
TM-3222L	TM-3122L	22MM	88.90	18.64	30.15	30.15
TM-3223L	TM-3123L	23MM	88.90	18.64	31.24	31.24
TM-3224L	TM-3124L	24MM	88.90	18.64	31.75	31.75
TM-3225L	TM-3125L	25MM	88.90	19.05	33.32	33.32
TM-3226L	TM-3126L	26MM	88.90	19.05	34.93	34.93
TM-3227L	TM-3127L	27MM	88.90	23.85	36.50	36.50
TM-3228L	TM-3128L	28MM	88.90	24.99	37.80	37.80
TM-3229L	TM-3129L	29MM	88.90	24.99	39.50	39.50
TM-3230L	TM-3130L	30MM	88.90	24.99	41.28	41.28
TM-3231L	TM-3131L	31MM	88.90	25.40	42.85	42.85
TM-3232L	TM-3132L	32MM	88.90	28.58	42.85	42.85

STI-3211MS

11 Piece Standard Metric Power Impact Socket Set, 6 Point, 15MM to 30MM

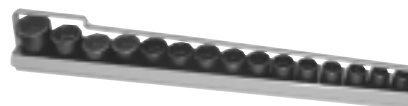


• Set consists of the following Part Numbers and sizes:

PM-3215	15MM	PM-3219	19MM	PM-3224	24MM
PM-3216	16MM	PM-3220	20MM	PM-3227	27MM
PM-3217	17MM	PM-3221	21MM	PM-3230	30MM
PM-3218	18MM	PM-3222	22MM	ST-61	Tray

STI-3215MS

15 Piece Standard Metric Power Impact Socket Set, 6 Point, 10MM to 27MM



• Set consists of the following Part Numbers and sizes:

PM-3210	10MM	PM-3216	16MM	PM-3222	22MM
PM-3211	11MM	PM-3217	17MM	PM-3224	24MM
PM-3212	12MM	PM-3218	18MM	PM-3227	27MM
PM-3213	13MM	PM-3219	19MM	ST-41	Tray
PM-3214	14MM	PM-3220	20MM		
PM-3215	15MM	PM-3221	21MM		

STI-3114MS

14 Piece Standard Metric Power Impact Socket Set, 12 Point, 10MM to 24MM

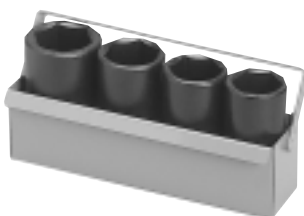


• Set consists of the following Part Numbers and sizes:

PM-3110	10MM	PM-3115	15MM	PM-3120	20MM
PM-3111	11MM	PM-3116	16MM	PM-3121	21MM
PM-3112	12MM	PM-3117	17MM	PM-3122	22MM
PM-3113	13MM	PM-3118	18MM	PM-3124	24MM
PM-3114	14MM	PM-3119	19MM	ST-80	Tray

STI-324LMS

4 Piece Deep Metric Power Impact Socket Set, 6 Point, 30MM to 36MM



• Set consists of the following Part Numbers and sizes:

PM-3230L	30MM	PM-3234L	34MM	ST-60	Tray
PM-3232L	32MM	PM-3236L	36MM		

STI-314LMS

4 Piece Deep Metric Power Impact Socket Set, 12 Point, 30MM to 36MM



• Set consists of the following Part Numbers and sizes:

PM-3130L	30MM	PM-3134L	34MM	ST-60	Tray
PM-3132L	32MM	PM-3136L	36MM		

STI-329LMS

9 Piece Deep Metric Power Impact Socket Set, 6 Point, 15MM to 24MM



• Set consists of the following Part Numbers and sizes:

PM-3215L	15MM	PM-3219L	19MM	PM-3224L	24MM
PM-3216L	16MM	PM-3220L	20MM	ST-62	Tray
PM-3217L	17MM	PM-3221L	21MM		
PM-3218L	18MM	PM-3222L	22MM		

STI-3214LMS

14 Piece Deep Metric Power Impact Socket Set, 6 Point, 10MM to 24MM



• Set consists of the following Part Numbers and sizes:

PM-3210L	10MM	PM-3215L	15MM	PM-3220L	20MM
PM-3211L	11MM	PM-3216L	16MM	PM-3221L	21MM
PM-3212L	12MM	PM-3217L	17MM	PM-3222L	22MM
PM-3213L	13MM	PM-3218L	18MM	PM-3224L	24MM
PM-3214L	14MM	PM-3219L	19MM	ST-37	Tray

STI-3114LMS

14 Piece Deep Metric Power Impact Socket Set, 12 Point, 10MM to 24MM



• Set consists of the following Part Numbers and sizes:

PM-3110L	10MM	PM-3115L	15MM	PM-3120L	20MM
PM-3111L	11MM	PM-3116L	16MM	PM-3121L	21MM
PM-3112L	12MM	PM-3117L	17MM	PM-3122L	22MM
PM-3113L	13MM	PM-3118L	18MM	PM-3124L	24MM
PM-3114L	14MM	PM-3119L	19MM	ST-37	Tray

Standard Metric Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER SOCKET END	OUTSIDE DIAMETER HANDLE END
PM-3210	PM-3110	10MM	38.09	4.60	16.76	22.22
PM-3211	PM-3111	11MM	38.09	5.46	18.46	22.22
PM-3212	PM-3112	12MM	38.09	6.10	19.89	23.81
PM-3213	PM-3113	13MM	38.09	6.75	21.21	23.81
PM-3214	PM-3114	14MM	38.09	8.33	22.37	23.81
PM-3215	PM-3115	15MM	38.09	8.33	24.25	25.40
PM-3216	PM-3116	16MM	38.09	9.55	25.40	25.40
PM-3217	PM-3117	17MM	38.09	9.55	26.98	26.98
PM-3218	PM-3118	18MM	38.09	10.16	28.57	28.57
PM-3219	PM-3119	19MM	38.09	11.10	28.57	28.57
PM-3220	PM-3120	20MM	38.09	11.50	30.16	30.16
PM-3221	PM-3121	21MM	38.09	11.71	31.75	31.75
PM-3222	PM-3122	22MM	38.09	12.44	33.32	33.32
PM-3224	PM-3124	24MM	44.44	13.84	34.92	34.92
PM-3227		27MM	50.79	15.82	39.67	39.67
PM-3230		30MM	53.97	16.66	42.86	42.86
PM-3236		36MM	57.14	21.44	53.97	53.97



WARNING!

FOR USE WITH IMPACT TOOLS: Use with impact wrenches and torque control tools according to their designed size and strength. DO NOT HOLD SPINNING SOCKET OR ACCESSORY.

REFER TO INDEX FOR A COMPLETE SELECTION OF SOCKET TRAYS AND HOLDERS...



THE SIX MAJOR POINTS OF HAND TOOL SAFETY

1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

1/2" DRIVE METRIC SOCKETS, UNIVERSALS AND SET

Deep Metric Power Impact Sockets, 6 and 12 Point



Drive Tools
(SAE & Metric)

6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
PM-3210L	PM-3110L	10MM	82.54	4.62	16.76	22.22	9.09	66.66
PM-3211L	PM-3111L	11MM	82.54	5.46	18.46	22.22	9.75	66.66
PM-3212L	PM-3112L	12MM	82.54	6.10	19.89	23.81	11.10	66.66
PM-3213L	PM-3113L	13MM	82.54	6.76	21.31	23.81	11.79	66.66
PM-3214L	PM-3114L	14MM	82.54	8.36	22.37	23.81	12.57	66.66
PM-3215L	PM-3115L	15MM	82.54	8.36	24.25	25.40	13.49	66.66
PM-3216L	PM-3116L	16MM	82.54	9.55	25.40	25.40	14.30	66.66
PM-3217L	PM-3117L	17MM	82.54	9.55	26.98	26.98	15.11	66.66
PM-3218L	PM-3118L	18MM	82.54	10.16	28.57	28.57	16.56	66.66
PM-3219L	PM-3119L	19MM	82.54	11.10	28.57	28.57	17.65	66.66
PM-3220L	PM-3120L	20MM	82.54	11.51	30.16	30.16	18.16	66.66
PM-3221L	PM-3121L	21MM	82.54	11.71	31.75	31.75	19.33	66.66
PM-3222L	PM-3122L	22MM	88.89	12.47	33.32	33.32	20.70	73.01
PM-3224L	PM-3124L	24MM	88.89	13.87	34.92	34.92	21.12	73.01
PM-3230L	PM-3130L	30MM	88.89	16.66	42.86	42.86	28.47	73.01
PM-3231L		31MM	88.90	17.65	43.69	43.69	28.47	73.01
PM-3232L	PM-3132L	32MM	88.90	18.64	45.24	35.70	30.68	73.01
PM-3233L		33MM	88.90	19.33	46.46	36.09	31.24	73.01
PM-3234L	PM-3134L	34MM	88.90	20.02	47.62	36.50	32.16	73.01
PM-3235L		35MM	88.90	21.13	50.80	41.28	33.35	73.01
PM-3236L	PM-3136L	36MM	88.90	22.25	53.97	46.03	33.35	73.01

Extra Deep Metric Power Impact Sockets, 6 and 12 Point



6 PT.	12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
					SOCKET END	HANDLE END	DIAMETER	DEPTH
	PM-3112XL	12MM	127.00	9.52	19.76	23.80	14.02	111.12
PM-3215XL		15MM	127.00	8.36	24.26	25.40	9.86	111.12

TSMUP-327RS

7 Piece Standard Metric Power Impact Universal Socket Set, 6 Point, 13MM to 21MM



Set consists of the following Part Numbers and sizes:

UP-3213MMR	13MM	UP-3218MMR	18MM
UP-3214MMR	14MM	UP-3219MMR	19MM
UP-3215MMR	15MM	UP-3221MMR	21MM
UP-3217MMR	17MM	ST-58	Tray

Standard Metric Power Impact Universal Sockets, 6 Point



PART NO.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
				SOCKET END	HANDLE END
UP-3213MMR	13MM	61.49	6.76	20.70	30.15
UP-3214MMR	14MM	64.67	8.36	22.23	30.15
UP-3215MMR	15MM	67.84	8.36	23.80	30.15
UP-3217MMR	17MM	71.02	9.53	25.40	30.15
UP-3218MMR	18MM	72.59	10.13	26.97	30.15
UP-3219MMR	19MM	67.31	11.10	26.97	30.15
UP-3221MMR	21MM	74.19	12.17	33.32	30.15

MMS-3215R



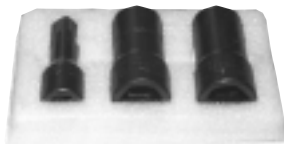
**Metric Magnetic
Spring Loaded Socket,
6 Point (Non-Impact Use)**



NOM.	O/L	BROACH DEPTH	DIAMETER		BOLT CLEAR DEPTH	DEPTH TO MAGNET
			SOC. END	HDL. END		
15MM	82.55	9.01	23.80	23.80	35.56	4.98

STLN-3PFS

**3 Piece Lug Nut
Set**



Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
EB-3-3	1/2" x 3" Industrial Finish Extension
P-322426	1/2" Dr. Dual Purpose Wheel Nut Socket (3/4" & 13/16")
PM-321921	1/2" Dr. Metric Dual Purpose Wheel Nut Socket (19MM & 21MM)

STLN-7S



**7 Piece Metric
Lug Nut Set,
6 Point
Deep Sockets**



Set consists of the following Part Numbers and sizes:

PM-3230L	30MM	PM-3234L	34MM
PM-3231L	31MM	PM-3235L	35MM
PM-3232L	32MM	PM-3236L	36MM
PM-3233L	33MM	ST-93	Tray

**Dual
Purpose
Wheel Nut
Sockets**



• 1/2" square female drive is between the openings. • Use with **EB-3-3** Extension.

PART NO.	HEX OPENINGS
P-322426	3/4" and 13/16"
PM-321719	17MM and 19MM
PM-321921	19MM and 21MM

Ratchets



PART NO.	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
SR-50	30	3/4"	1-3/4"	9-5/8"
SR-70	30	3/4"	1-3/4"	15"

SR-501

**Industrial
Finish Ratchet**



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
30	3/4"	1-3/4"	9-5/8"

Plastic Handle Ratchets



PART NO.	HANDLE COLOR	GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
SR-50H	Blue	30	3/4"	1-3/4"	11-11/32"
SR-50NOH	Orange	30	3/4"	1-3/4"	11-11/32"

SR-701

Industrial Finish Ratchet



GEAR TEETH	HEAD THICKNESS	HEAD WIDTH	LENGTH
30	3/4"	1-3/4"	15"

SRF-76

Flex Head Ratchet



• 180° head swing. • 30 gear teeth provide 12° handle swing angle. • Overall Length: 17-1/2". • Ball/dimple design holds head at proper angle. • Chrome plated handle and head.

SRF-76H

**Flex Head Ratchet
with Blue Handle**



• 180° head swing. • 30 gear teeth provide 12° handle swing angle. • Overall Length: 17-1/2". • Ball/dimple design holds head at proper angle. • Chrome plated handle and head.

1/2" DRIVE ATTACHMENTS

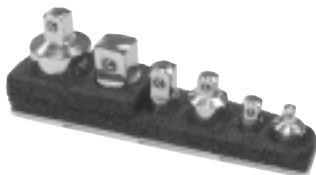
Flex Breaker Bars



PART NO.	TYPE RETAINER	LENGTH
HF-315	Ball	15-1/4"
HF-318	Ball	18-1/4"
HF-324	Ball	24-1/4"

STA-6PFS

6 Pc. Adaptor Set



Set consists of the following in a polyfoam tray:

PART NO.	FEMALE SQ.	MALE SQ.	LENGTH
A-02	1/4"	3/8"	1"
A-20	3/8"	1/4"	1"
A-23	3/8"	1/2"	1-1/2"
A-32	1/2"	3/8"	1-7/16"
A-35	1/2"	3/4"	1-3/4"
A-53	3/4"	1/2"	2-3/16"

Adaptors



PART NO.	FEMALE SQUARE	MALE SQUARE	LENGTH	OUTSIDE DIAMETER
A-32	1/2"	3/8"	1-13/32"	7/8"
A-35	1/2"	3/4"	1-3/4"	1"

Power Adaptors



PART NO.	RET. TYPE	FEMALE DR.	MALE DR.	O/L	OUTSIDE DIAMETER
AP-32	Pin	1/2"	3/8"	1-1/2"	1"
AP-32B	Ball	1/2"	3/8"	1-1/2"	1"
AP-35	Pin	1/2"	3/4"	1-27/32"	1-1/8"

D-314-3

Driver with Pin Retainer



HEX SIZE	SHANK DIA.	LENGTH
7/16"	11/16"	2-3/4"

STR-SA-10-03



3 Piece Polished Socket Adapter Set

- Permits use of larger drive size sockets without adding length to the driver.
- Used inside the socket to extend socket out only 1/8".
- Heat treated 4140 stainless steel.

Set consists of the following Part Numbers and sizes:

PART NO.	NOMINAL	PART NO.	NOMINAL
STR-SA-10-14	1/4" to 3/8"	STR-SA-10-12	1/2" to 3/4"
STR-SA-10-38	3/8" to 1/2"		

RS-30

Ratchet Spinner

- Knob Diameter: 1-1/2".
- Overall Length: 1-1/2".



UJ-3

Universal Joint



FEMALE SQUARE	MALE SQUARE	LENGTH	HANDLE DIAMETER
1/2"	1/2"	2-43/64"	1"



WARNING!

Wear safety goggles. Read operating instructions thoroughly. Always use tools for their intended purpose only.

THE SIX MAJOR POINTS OF HAND TOOL SAFETY

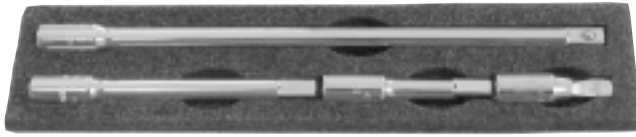
1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

For our complete line of Safety Equipment, refer to Index



E-3-4PFS

4 Piece Extension Set



Set consists of the following Part Numbers in a polyfoam tray:

E-3-2WD	2" Stubby Wobble Drive Extension	E-3-5	5" Extension
E-3-3	3" Extension	E-3-10	10" Extension

E-3-3LKPFS

3 Piece Locking Extension Set



Set consists of the following Part Numbers in a polyfoam tray:

E-3-5LK	1/2" x 5" Extension	E-3-12LK	1/2" x 12" Extension
E-3-7LK	1/2" x 7" Extension		

Drive Tools
(SAE & Metric)

Extensions (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
E-3-2	2"	21/32"	7/8"
E-3-3	3"	21/32"	7/8"
E-3-5	5"	21/32"	7/8"
E-3-10	10"	21/32"	7/8"
E-3-20	20"	21/32"	7/8"
E-3-24	24"	21/32"	7/8"
E-3-30	30"	21/32"	7/8"

Extensions (Locking Type)



PART NO.	SHANK DIAMETER	LENGTH
E-3-5LK	21/32"	5"
E-3-7LK	21/32"	7"
E-3-12LK	21/32"	12"

E-3-2WD

Stubby Wobble Drive Extension



LENGTH	SHANK DIAMETER	HANDLE DIAMETER
2"	21/32"	7/8"

Power Extensions (Pin Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
EP-3-2	2"	21/32"	61/64"
EP-3-4	4"	21/32"	61/64"
EP-3-5	5"	21/32"	61/64"
EP-3-6	6"	21/32"	15/16"
EP-3-10	10"	21/32"	15/16"
EP-3-20	20"	21/32"	1"

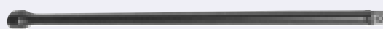
Extensions (Industrial Finish) (Ball Type Retainer)



PART NO.	LENGTH	SHANK DIAMETER	HANDLE DIAMETER
EB-3-3*	3"	21/32"	1"
EB-3-5*	5"	1/2"	61/64"
EB-3-10*	10"	1/2"	15/16"

* Not For Power Use.

Extension Adaptors (Ball Type Retainer)



PART NO.	FEMALE SQUARE	MALE SQUARE	LENGTH	SHANK DIAMETER	HANDLE END DIAMETER
EA-32-5B	1/2"	3/8"	5"	21/32"	57/64"
EA-32-10B	1/2"	3/8"	10"	21/32"	57/64"
EA-32-24B	1/2"	3/8"	24"	21/32"	57/64"
EA-32-36B	1/2"	3/8"	36"	21/32"	57/64"

ST-5113BS

13 Piece Thinwall Socket Set, 12 Point, 3/4" to 1-1/2" (Industrial Finish), Non-Impact

Set consists of the following Part Numbers and sizes:

T-5124B	3/4"	T-5134B	1-1/16"	T-5144B	1-3/8"
T-5126B	13/16"	T-5136B	1-1/8"	T-5146B	1-7/16"
T-5128B	7/8"	T-5138B	1-3/16"	T-5148B	1-1/2"
T-5130B	15/16"	T-5140B	1-1/4"	ST-85	Tray
T-5132B	1"	T-5142B	1-5/16"		

Thinwall Sockets, 12 Point (Industrial Finish), Non-Impact



12 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
				SOCKET END	HANDLE END
T-5124B	3/4"	2"	1/2"	1-7/32"	1-9/32"
T-5126B	13/16"	2"	1/2"	1-9/32"	1-9/32"
T-5128B	7/8"	2"	1/2"	1-3/8"	1-3/8"
T-5130B	15/16"	2"	35/64"	1-3/8"	1-3/8"
T-5132B	1"	2-1/32"	35/64"	1-7/16"	1-7/16"
T-5134B	1-1/16"	2-1/16"	5/8"	1-9/16"	1-7/16"
T-5136B	1-1/8"	2-1/8"	21/32"	1-41/64"	1-7/16"
T-5138B	1-3/16"	2-1/8"	21/32"	1-11/16"	1-7/16"
T-5140B	1-1/4"	2-13/64"	3/4"	1-13/16"	1-9/16"
T-5142B	1-5/16"	2-1/4"	49/64"	1-7/8"	1-9/16"
T-5144B	1-3/8"	2-1/4"	25/32"	1-7/8"	1-9/16"
T-5146B	1-7/16"	2-5/16"	7/8"	2-1/64"	1-9/16"
T-5148B	1-1/2"	2-5/16"	55/64"	2-5/64"	1-5/8"
T-5150B	1-9/16"	2-7/16"	55/64"	2-3/32"	1-19/32"
T-5152B	1-5/8"	2-1/2"	1"	2-5/32"	1-19/32"
T-5154B	1-11/16"	2-1/2"	1"	2-7/32"	1-41/64"
T-5156B	1-3/4"	2-1/2"	1-3/32"	2-5/16"	1-21/32"
T-5158B	1-13/16"	2-43/64"	1-1/8"	2-3/8"	1-3/4"
T-5160B	1-7/8"	2-53/64"	1-1/8"	2-15/32"	1-3/4"
T-5164B	2"	3"	1-7/32"	2-39/64"	1-3/4"
T-5166B	2-1/16"	3-1/32"	1-7/32"	2-23/32"	1-15/16"
T-5168B	2-1/8"	3-1/16"	1-7/32"	2-27/32"	1-15/16"
T-5170B	2-3/16"	3-1/16"	1-3/8"	2-27/32"	1-15/16"
T-5172B	2-1/4"	3-3/16"	1-3/8"	2-61/64"	1-15/16"
T-5176B	2-3/8"	3-1/4"	1-3/8"	3-1/8"	1-15/16"

STI-529S

9 Piece Impact Socket Set, 6 Point, 1" to 1-1/2"



Set consists of the following Part Numbers and sizes:

I-5232	1"	I-5240	1-1/4"	I-5248	1-1/2"
I-5234	1-1/16"	I-5242	1-5/16"	ST-74	Tray
I-5236	1-1/8"	I-5244	1-3/8"		
I-5238	1-3/16"	I-5246	1-7/16"		

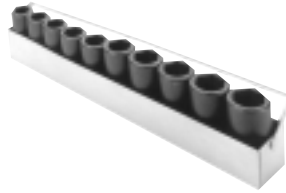
Standard Impact Sockets, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER	
				SOCKET END	HANDLE END
I-5224	3/4"	2-1/4"	19/32"	1-1/4"	1-5/8"
I-5226	13/16"	2-1/4"	39/64"	1-3/8"	1-5/8"
I-5228	7/8"	2-1/4"	21/32"	1-1/2"	1-5/8"
I-5230	15/16"	2-3/8"	3/4"	1-5/8"	1-5/8"
I-5232	1"	2-3/8"	3/4"	1-5/8"	1-5/8"
I-5234	1-1/16"	2-1/2"	7/8"	1-11/16"	1-11/16"
I-5236	1-1/8"	2-1/2"	7/8"	1-3/4"	1-3/4"
I-5238	1-3/16"	2-1/2"	7/8"	1-7/8"	1-7/8"
I-5240	1-1/4"	2-5/8"	15/16"	2"	2"
I-5242	1-5/16"	2-5/8"	1"	2-1/8"	2-1/8"
I-5244	1-3/8"	2-3/4"	1-1/32"	2-1/8"	2-1/8"
I-5246	1-7/16"	2-3/4"	1-1/16"	2-1/4"	2-1/4"
I-5248	1-1/2"	2-3/4"	1-1/8"	2-5/16"	2-5/16"
I-5250	1-9/16"	2-1/2"	1-1/4"	2-25/64"	1-57/64"
I-5252	1-5/8"	2-1/2"	1-1/4"	2-7/16"	1-57/64"
I-5254	1-11/16"	2-5/8"	1-3/8"	2-1/2"	1-57/64"
I-5256	1-3/4"	2-5/8"	1-3/8"	2-1/2"	1-57/64"
I-5258	1-13/16"	2-5/8"	1-7/16"	2-39/64"	1-57/64"
I-5260	1-7/8"	2-3/4"	1-1/2"	2-45/64"	1-57/64"
I-5264	2"	2-7/8"	1-9/16"	2-3/4"	1-57/64"

STI-5210LS

10 Piece Deep Impact Socket Set, 6 Point, 15/16" to 1-1/2"



Set consists of the following Part Numbers and sizes:

I-5230L	15/16"	I-5238L	1-3/16"	I-5246L	1-7/16"
I-5232L	1"	I-5240L	1-1/4"	I-5248L	1-1/2"
I-5234L	1-1/16"	I-5242L	1-5/16"	ST-75	Tray
I-5236L	1-1/8"	I-5244L	1-3/8"		

Deep Impact Sockets, 6 Point



6 PT.	NOMINAL	OVERALL LENGTH	BROACH DEPTH	OUTSIDE DIAMETER		BOLT CLEARANCE	
				SKT END	HDL END	DIAMETER	DEPTH
I-5224L	3/4"	3-1/2"	19/32"	1-1/4"	1-5/8"	45/64"	2-7/16"
I-5226L	13/16"	3-1/2"	5/8"	1-3/8"	1-5/8"	49/64"	2-7/16"
I-5228L	7/8"	3-1/2"	21/32"	1-1/2"	1-5/8"	53/64"	2-7/16"
I-5230L	15/16"	3-1/2"	3/4"	1-5/8"	1-5/8"	55/64"	2-7/16"
I-5232L	1"	3-1/2"	3/4"	1-5/8"	1-5/8"	15/16"	2-7/16"
I-5234L	1-1/16"	3-1/2"	7/8"	1-11/16"	1-11/16"	63/64"	2-7/16"
I-5236L	1-1/8"	3-1/2"	7/8"	1-3/4"	1-3/4"	1-5/64"	2-7/16"
I-5238L	1-3/16"	3-1/2"	7/8"	1-7/8"	1-7/8"	1-1/8"	2-7/16"
I-5240L	1-1/4"	3-3/4"	15/16"	2"	2"	1-13/64"	2-21/32"
I-5242L	1-5/16"	3-3/4"	1"	2-1/8"	2-1/8"	1-9/32"	2-21/32"
I-5244L	1-3/8"	3-3/4"	1-1/32"	2-1/8"	2-1/8"	1-21/64"	2-21/32"
I-5246L	1-7/16"	3-3/4"	1-1/16"	2-1/4"	2-1/4"	1-3/8"	2-21/32"
I-5248L	1-1/2"	3-3/4"	1-1/8"	2-5/16"	2-5/16"	1-3/8"	2-21/32"
I-5250L	1-9/16"	3-1/2"	2-5/16"	2-25/64"	1-57/64"	1-17/32"	2-5/16"
I-5252L	1-5/8"	3-1/2"	2-5/16"	2-7/16"	1-57/64"	1-19/32"	2-5/16"
I-5254L	1-11/16"	3-1/2"	2-5/16"	2-1/2"	1-57/64"	1-21/32"	2-5/16"
I-5256L	1-3/4"	3-1/2"	2-1/4"	2-1/2"	1-57/64"	1-23/32"	2-1/4"
I-5258L	1-13/16"	3-1/2"	2-1/4"	2-39/64"	1-57/64"	1-25/32"	2-1/4"
I-5260L	1-7/8"	3-1/2"	2-1/4"	2-45/64"	1-57/64"	1-27/32"	2-1/4"
I-5264L	2"	3-3/4"	2-3/8"	2-3/4"	1-57/64"	1-31/32"	2-3/8"

Dual Budd Wheel Sockets

- Two openings: 13/16" square and 1-1/2" hex. • Simultaneous removal or installation of Budd wheel nut and stud cap.



PART NO.	DRIVE SIZE	DIAMETER	LENGTH
I-5-4826BW	3/4" Sq.	2-1/4"	3-5/16"
I-6-4826BW	1" Sq.	2-1/4"	3-3/8"

HAR-501

2 Piece Ratchet, Industrial Finish

- Overall Length: 25-1/2".

Ratchet consists of the following Part Numbers:

HAH-5B	21" O.A. Industrial Finish Handle
HAR-5BL	3/4" Industrial Finish Ratchet Head



Industrial Finish Handles



PART NO.	DIAMETER	LENGTH
HAH-5B	7/8"	21"
HAH-5LB	7/8"	34"

Impact Adaptors "O" Ring and Pin



PART NO.	FEMALE DR.	MALE DR.	O/A	RETAINER ASSEMBLY	OUTSIDE DIA.
AP-53	3/4"	1/2"	2-7/32"	RIB-28, SP-22	1-9/16"
AP-56	3/4"	1"	2-5/8"	RIB-28, SP-22	2"

Note: Pin & "O" Ring not included

Locking Pins and "O" Rings for 3/4" Drive Impact Sockets

PART NO.	DIAMETER	LENGTH
SP-22	11/64"	1-3/8"
SP-27	11/64"	1-7/8"



PART NO.	SOCKET DIAMETER
RIB-27	1-9/16"
RIB-28	2-1/16"
RIB-32	2-7/16"



WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

HAR-5BL

Ratchet Head

- Head Width: 2-5/8". • Length: 6-1/2".



HF-521B

Flex Breaker Bar, Industrial Finish

- One piece construction. • Ball Type Retainer. • Length: 21".



WARNING!

Wear safety goggles. Read operating instructions thoroughly.

A-53

Adaptor



FEMALE SQUARE	MALE SQUARE	LENGTH
3/4"	1/2"	2-3/16"

E-5-6

Extension, (Ball Type Retainer)



LENGTH	OUTSIDE DIAMETER	SHANK DIAMETER
6"	1-7/16"	1"

EB-5-6

Extension (Industrial Finish) (Ball Type Retainer)



LENGTH	OUTSIDE DIAMETER	SHANK DIAMETER
6"	1-7/16"	1"

DL-52

Drag Link Adjuster Socket



BLADE WIDTH	BLADE THICKNESS	LENGTH
1-3/8"	13/64"	2-3/16"

HAR-601

2 Piece Ratchet, Industrial Finish

- Overall Length: 25-1/2".



Ratchet consists of the following Part Numbers:

HAH-5B	21" O.A. Industrial Finish Handle
HAR-6BL	1" Industrial Finish Ratchet Head

AP-65

Impact Adaptor "O" Ring and Pin



FEMALE DRIVE	MALE DRIVE	OVERALL LENGTH	RETAINER ASSEMBLY	OUTSIDE DIAMETER
1"	3/4"	2-13/16"	RIB-32, SP-32	2-1/8"

Note: Pin & "O" Ring not included

Industrial Finish Handles



PART NO.	DIAMETER	LENGTH
HAH-5B	7/8"	21"
HAH-5LB	7/8"	34"

HAR-6BL

Ratchet Head

- Head Width: 2-5/8". • Length: 6-1/2".



Locking Pins and "O" Rings for 1" Drive Impact Sockets

PART NO.	DIAMETER	LENGTH
SP-32	7/32"	1-7/8"
SP-35	7/32"	2"
SP-36	7/32"	2-1/2"



PART NO.	SOCKET DIAMETER
RIB-32	2-7/16"
RIB-35	2-3/4"
RIB-38	3-18"
RIB-41	3-5/8"
RIB-45	4-1/4"



WRENCHES



*The Choice of Professionals®
- Since 1919 -*

CWP1-7S

7 Piece Standard Combination Wrench Set, 12 Point, 1-1/16" to 1-1/2" (Full Polish)

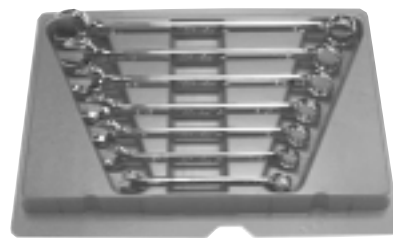


Set consists of the following Part Numbers and sizes:

CWP-3434	1-1/16"	CWP-4444	1-3/8"
CWP-3636	1-1/8"	CWP-4646	1-7/16"
CWP-4040	1-1/4"	CWP-4848	1-1/2"
CWP-4242	1-5/16"	K-212	Kit Bag

WCP1-7ST

7 Piece Combination Wrench Set, 12 Point, 3/8" to 3/4" (Full Polish)

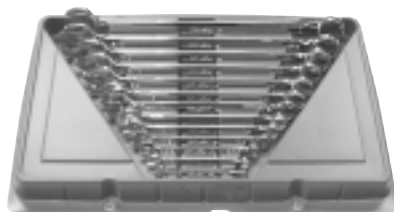


Set consists of the following Part Numbers and sizes:

CWP-1212	3/8"	CWP-2020	5/8"
CWP-1414	7/16"	CWP-2222	11/16"
CWP-1616	1/2"	CWP-2424	3/4"
CWP-1818	9/16"		

WCP1-13ST

13 Piece Combination Wrench Set, 12 Point, 1/4" to 1" (Full Polish)



Set consists of the following Part Numbers and sizes:

CWP-0808	1/4"	CWP-1818	9/16"	CWP-2828	7/8"
CWP-1010	5/16"	CWP-2020	5/8"	CWP-3030	15/16"
CWP-1212	3/8"	CWP-2222	11/16"	CWP-3232	1"
CWP-1414	7/16"	CWP-2424	3/4"		
CWP-1616	1/2"	CWP-2626	13/16"		

WCP2-9S

9 Piece Combination Wrench Set, 6 Point, 1/4" to 3/4", (Full Polish)



Set consists of the following Part Numbers and sizes:

CWSP-0808	1/4"	CWSP-1818	9/16"
CWSP-1010	5/16"	CWSP-2020	5/8"
CWSP-1212	3/8"	CWSP-2222	11/16"
CWSP-1414	7/16"	CWSP-2424	3/4"
CWSP-1616	1/2"	K-94	Kit Bag

CWB1-7S

7 Piece Standard Combination Wrench Set, 12 Point, 1-1/16" to 1-1/2" (Industrial Finish)



Set consists of the following Part Numbers and sizes:

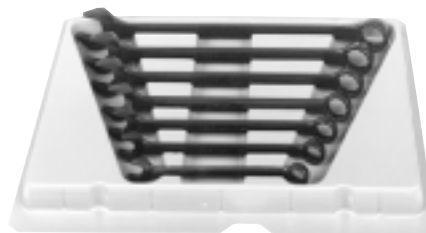
CWB-3434	1-1/16"	CWB-4444	1-3/8"
CWB-3636	1-1/2"	CWB-4646	1-7/16"
CWB-4040	1-1/4"	CWB-4848	1-1/2"
CWB-4242	1-5/16"	K-212	Kit Bag

WCB1-7ST

7 Piece Combination Wrench Set, 12 Point, 3/8" to 3/4", (Industrial Finish)

Set consists of the following Part Numbers and sizes:

CWB-1212	3/8"	CWB-2020	5/8"
CWB-1414	7/16"	CWB-2222	11/16"
CWB-1616	1/2"	CWB-2424	3/4"
CWB-1818	9/16"		



WARNING!

Excessive force can cause wrench slippage. Wear Safety Goggles. Always use the right tool for the job. Use tools for their intended uses or applications

Standard Combination Wrenches

- V-throat open end head allows four sided grip on the fastener to prevent slippage.
- High polished nickel chrome plating on Full Polish wrenches resists rust and enhances the appearance of the tool.
- TDS Torque Dispersing System opening design spreads stress evenly and reduces fastener rounding.



6 Point, Full Polish	12 Point, Full Polish	12 Point, Industrial Finish	Part Number	Part Number	Part Number	Nominal Size	Overall Length	Head Thickness		Head Diameter	
								Box End	Open End	Box End	Open End
			CWSP-0808	CWP-0808		1/4"	4"	15/64"	3/16"	27/64"	37/64"
			CWSP-1010	CWP-1010		5/16"	4-1/2"	1/4"	13/64"	33/64"	45/64"
			CWSP-1212	CWP-1212	CWB-1212	3/8"	5-1/4"	5/16"	13/64"	5/8"	13/16"
			CWSP-1414	CWP-1414	CWB-1414	7/16"	6-3/16"	5/16"	15/64"	43/64"	15/16"
			CWSP-1616	CWP-1616	CWB-1616	1/2"	7"	21/64"	1/4"	3/4"	1-1/16"
			CWSP-1818	CWP-1818	CWB-1818	9/16"	7-3/4"	3/8"	9/32"	27/32"	1-3/16"
			CWSP-2020	CWP-2020	CWB-2020	5/8"	8-3/4"	25/64"	5/16"	59/64"	1-5/16"
			CWSP-2222	CWP-2222	CWB-2222	11/16"	9-9/16"	29/64"	21/64"	1"	1-7/16"
			CWSP-2424	CWP-2424	CWB-2424	3/4"	10-5/8"	15/32"	23/64"	1-3/32"	1-9/16"
				CWP-2626	CWB-2626	13/16"	11-1/2"	1/2"	23/64"	1-3/16"	1-11/16"
				CWP-2828	CWB-2828	7/8"	12-1/2"	19/32"	23/64"	1-5/16"	1-25/32"
				CWP-3030	CWB-3030	15/16"	13-3/4"	9/16"	13/32"	1-3/8"	1-15/16"
				CWP-3232	CWB-3232	1"	14-1/4"	19/32"	7/16"	1-7/16"	2-1/16"
				CWP-3434	CWB-3434	1-1/16"	14-3/4"	21/32"	15/32"	1-9/16"	2-3/16"
				CWP-3636	CWB-3636	1-1/8"	15-5/8"	11/16"	1/2"	1-5/8"	2-5/16"
				CWP-4040	CWB-4040	1-1/4"	17"	3/4"	17/32"	1-27/32"	2-9/16"
				CWP-4242	CWB-4242	1-5/16"	18"	25/32"	17/32"	1-15/16"	2-11/16"
				CWP-4444	CWB-4444	1-3/8"	19"	13/16"	17/32"	2-1/64"	2-13/16"
				CWP-4646	CWB-4646	1-7/16"	20"	27/32"	9/16"	2-3/32"	2-15/16"
				CWP-4848	CWB-4848	1-1/2"	21"	7/8"	5/8"	2-3/16"	3-1/16"
				CWP-5252	CWB-5252	1-5/8"	22"	31/32"	5/8"	2-3/8"	3-5/16"

Wrenches
& Striking Tools

Combination Flex Head Wrenches



PART NO.	WR. SIZE	OPENING	O/A LENGTH*
CWX-14	7/16"	6 point	6"
CWX-16	1/2"	12 point	6-7/8"
CWX-20	5/8"	12 point	8-5/8"
CWX-22	11/16"	12 point	9-1/2"
CWX-24	3/4"	12 point	10-3/8"

* = O/A is length with socket 90° to wrench.

WCP1-7LST

7 Piece Extra Long Combination Wrench Set, 12 Point, 3/8" to 3/4" (Full Polish)



Set consists of the following Part Numbers and sizes:

CWP-1212L	3/4"	CWP-2020L	5/8"
CWP-1414L	7/16"	CWP-2222L	11/16"
CWP-1616L	1/2"	CWP-2424L	3/4"
CWP-1818L	9/16"		

Extra Long Combination Wrenches, 12 Point, (Full Polish)



PART NO.	WRENCH SIZE	OVERALL LENGTH
CWP-1212L	3/8"	7-3/8"
CWP-1414L	7/16"	8"
CWP-1616L	1/2"	9-1/8"
CWP-1818L	9/16"	10"
CWP-2020L	5/8"	10-7/8"
CWP-2222L	11/16"	11-3/4"
CWP-2424L	3/4"	12-5/8"

COMBINATION WRENCHES AND SETS

WCXS1-6ST

6 Piece Extra Short Combination Wrench Set, 12 Point, 7/16" to 3/4" (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-1414XS	7/16"	CW-2020XS	5/8"
CW-1616XS	1/2"	CW-2222XS	11/16"
CW-1818XS	9/16"	CW-2424XS	3/4"

WCXS1-4ST

4 Piece Extra Short Combination Wrench Set, 12 Point, 13/16" to 1", (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-2626XS	13/16"	CW-3030XS	15/16"
CW-2828XS	7/8"	CW-3232XS	1"

Wrenches
& Striking Tools



WCXS1-10ST

10 Piece Extra Short Combination Wrench Set, 12 Point, 7/16" to 1" (Full Polish)

Set consists of the following Part Numbers and sizes:

CW-1414XS	7/16"	CW-2424XS	3/4"
CW-1616XS	1/2"	CW-2626XS	13/16"
CW-1818XS	9/16"	CW-2828XS	7/8"
CW-2020XS	5/8"	CW-3030XS	15/16"
CW-2222XS	11/16"	CW-3232XS	1"

WCXSB1-6ST

6 Piece Extra Short Combination Wrench Set, 12 Point, 7/16" to 3/4", (Industrial Finish)



Set consists of the following Part Numbers and sizes:

CWB-1414XS	7/16"	CWB-2020XS	5/8"
CWB-1616XS	1/2"	CWB-2222XS	11/16"
CWB-1818XS	9/16"	CWB-2424XS	3/4"

WCXSB1-10ST

10 Piece Extra Short Combination Wrench Set, 12 Point, 7/16" to 1", (Industrial Finish)



Set consists of the following Part Numbers and sizes:

CWB-1414XS	7/16"	CWB-2424XS	3/4"
CWB-1616XS	1/2"	CWB-2626XS	13/16"
CWB-1818XS	9/16"	CWB-2828XS	7/8"
CWB-2020XS	5/8"	CWB-3030XS	15/16"
CWB-2222XS	11/16"	CWB-3232XS	1"

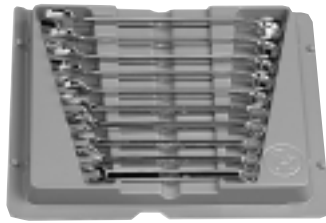
Extra Short Standard Combination Wrenches, 12 Point



12 Point, Full Polish	12 Point, Industrial Finish	Nominal Size	Overall Length	Head Thickness		Head Diameter	
				Box End	Open End	Box End	Open End
CW-1414XS	CWB-1414XS	7/16"	4-1/32"	19/64"	15/64"	21/32"	15/16"
CW-1616XS	CWB-1616XS	1/2"	4-3/8"	11/32"	17/64"	49/64"	1-5/64"
CW-1818XS	CWB-1818XS	9/16"	4-35/64"	23/64"	9/32"	53/64"	1-3/16"
CW-2020XS	CWB-2020XS	5/8"	4-7/8"	13/32"	5/16"	15/16"	1-21/64"
CW-2222XS	CWB-2222XS	11/16"	5-7/32"	29/64"	11/32"	1-3/64"	1-31/64"
CW-2424XS	CWB-2424XS	3/4"	5-25/64"	15/32"	23/64"	1-7/64"	1-9/16"
CW-2626XS	CWB-2626XS	13/16"	6"	35/64"	13/32"	1-15/64"	1-49/64"
CW-2828XS	CWB-2828XS	7/8"	6-1/4"	37/64"	27/64"	1-9/32"	1-7/8"
CW-3030XS	CWB-3030XS	15/16"	6-3/4"	19/32"	7/16"	1-25/64"	1-61/64"
CW-3232XS	CWB-3232XS	1"	7-1/4"	21/32"	29/64"	1-33/64"	1-1/16"

WCM2-10ST

10 Piece Standard Metric Combination Wrench Set, 6 Point, 10MM to 19MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

CWS-10	10MM	CWS-15	15MM
CWS-11	11MM	CWS-16	16MM
CWS-12	12MM	CWS-17	17MM
CWS-13	13MM	CWS-18	18MM
CWS-14	14MM	CWS-19	19MM

WCM1-10ST

10 Piece Standard Metric Combination Wrench Set, 12 Point, 10MM to 19MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-10	10MM	CW-15	15MM
CW-11	11MM	CW-16	16MM
CW-12	12MM	CW-17	17MM
CW-13	13MM	CW-18	18MM
CW-14	14MM	CW-19	19MM

WCMP1-9S

9 Piece Standard Metric Combination Wrench Set, 12 Point, 20MM to 32MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-20	20MM	CW-26	26MM
CW-21	21MM	CW-27	27MM
CW-22	22MM	CW-30	30MM
CW-23	23MM	CW-32	32MM
CW-24	24MM	K-90	Kit Bag

WCM1-10LST

10 Piece Extra Long Metric Combination Wrench Set, 12 Point, 10MM to 19MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-10MML	10MM	CW-15MML	15MM
CW-11MML	11MM	CW-16MML	16MM
CW-12MML	12MM	CW-17MML	17MM
CW-13MML	13MM	CW-18MML	18MM
CW-14MML	14MM	CW-19MML	19MM

Extra Long Metric Combination Wrenches, 12 Point



12 Point, Full Polish

Part Number	Nominal Size	Overall Length	Head Thickness		Head Diameter	
			Box End	Open End	Box End	Open End
CW-10MML	10MM	7-3/8"	5/16"	7/32"	5/8"	53/64"
CW-11MML	11MM	7-61/64"	5/16"	15/64"	43/64"	15/16"
CW-12MML	12MM	8-35/64"	21/64"	1/4"	45/64"	1"
CW-13MML	13MM	9-1/8"	21/64"	1/4"	3/4"	1-1/16"
CW-14MML	14MM	9-45/64"	3/8"	17/64"	53/64"	1-13/64"
CW-15MML	15MM	10-9/32"	3/8"	19/64"	7/8"	1-1/4"
CW-16MML	16MM	10-7/8"	25/64"	5/16"	59/64"	1-5/16"
CW-17MML	17MM	11-3/4"	29/64"	21/64"	63/64"	1-7/16"
CW-18MML	18MM	12-5/8"	15/32"	23/64"	1-3/32"	1-9/16"
CW-19MML	19MM	13-1/2"	1/2"	3/8"	1-3/32"	1-37/64"

WCMB2-10ST

10 Piece Metric Combination Wrench Set, 6 Point, 10MM to 19MM, (Industrial Finish)



Set consists of the following Part Numbers and sizes:

CWSB-10	10MM	CWSB-15	15MM
CWSB-11	11MM	CWSB-16	16MM
CWSB-12	12MM	CWSB-17	17MM
CWSB-13	13MM	CWSB-18	18MM
CWSB-14	14MM	CWSB-19	19MM

WCMB1-10ST

10 Piece Metric Combination Wrench Set, 12 Point, 10MM to 19MM, (Industrial Finish)



Set consists of the following Part Numbers and sizes:

CWB-10	10MM	CWB-15	15MM
CWB-11	11MM	CWB-16	16MM
CWB-12	12MM	CWB-17	17MM
CWB-13	13MM	CWB-18	18MM
CWB-14	14MM	CWB-19	19MM



WCMB1-9S

9 Piece Standard Metric Combination Wrench Set, 12 Point, 20MM to 32MM, (Industrial Finish)

Set consists of the following Part Numbers and sizes:

CWB-20	20MM	CWB-26	26MM
CWB-21	21MM	CWB-27	27MM
CWB-22	22MM	CWB-30	30MM
CWB-23	23MM	CWB-32	32MM
CWB-24	24MM	K-90	Kit Bag

Standard Metric Combination Wrenches, 6 and 12 Point (Full Polish & Industrial Finish)



6 Point, Full Polish	12 Point, Full Polish	6 Point, Industrial Finish	12 Point, Industrial Finish	Nominal Size	Overall Length	Head Thickness		Head Diameter	
Part Number	Part Number	Part Number	Part Number			Box End	Open End	Box End	Open End
CWS-10	CW-10	CWSB-10	CWB-10	10MM	6-5/8"	9/32"	1/4"	5/8"	27/32"
CWS-11	CW-11	CWSB-11	CWB-11	11MM	7"	5/16"	7/32"	41/64"	29/32"
CWS-12	CW-12	CWSB-12	CWB-12	12MM	7-3/8"	21/64"	1/4"	45/64"	1"
CWS-13	CW-13	CWSB-13	CWB-13	13MM	7-3/4"	23/64"	1/4"	3/4"	1-3/32"
CWS-14	CW-14	CWSB-14	CWB-14	14MM	8-1/8"	11/32"	9/32"	13/16"	1-11/64"
CWS-15	CW-15	CWSB-15	CWB-15	15MM	8-1/2"	13/32"	19/64"	7/8"	1-9/32"
CWS-16	CW-16	CWSB-16	CWB-16	16MM	8-7/8"	27/64"	5/16"	59/64"	1-21/64"
CWS-17	CW-17	CWSB-17	CWB-17	17MM	9-1/4"	29/64"	21/64"	1"	1-13/32"
CWS-18	CW-18	CWSB-18	CWB-18	18MM	9-5/8"	15/32"	11/32"	1-3/64"	1-1/2"
CWS-19	CW-19	CWSB-19	CWB-19	19MM	10"	1/2"	23/64"	1-3/32"	1-9/16"
	CW-20		CWB-20	20MM	10-9/16"	33/64"	3/8"	1-5/32"	1-41/64"
	CW-21		CWB-21	21MM	11-1/8"	17/32"	25/64"	1-7/32"	1-23/32"
	CW-22		CWB-22	22MM	11-11/16"	9/16"	13/32"	1-9/32"	1-51/64"
	CW-23		CWB-23	23MM	12-1/4"	37/64"	27/64"	1-21/64"	1-7/8"
	CW-24		CWB-24	24MM	12-13/16"	19/32"	27/64"	1-25/64"	1-61/64"
	CW-26		CWB-26	26MM	13-15/16"	41/64"	29/64"	1-33/64"	2-7/64"
	CW-27		CWB-27	27MM	14-1/2"	21/32"	15/32"	1-9/16"	2-3/16"
	CW-30		CWB-30	30MM	16-3/16"	45/64"	1/2"	1-47/64"	2-27/64"
	CW-32		CWB-32	32MM	17-5/16"	3/4"	33/64"	1-55/64"	2-37/64"

WCMS1-10ST

10 Piece Short Metric Combination Wrench Set, 12 Point, 10MM to 19MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-10MMS	10MM	CW-15MMS	15MM
CW-11MMS	11MM	CW-16MMS	16MM
CW-12MMS	12MM	CW-17MMS	17MM
CW-13MMS	13MM	CW-18MMS	18MM
CW-14MMS	14MM	CW-19MMS	19MM

WCMS1-14ST

14 Piece Short Metric Combination Wrench Set, 12 Point, 6MM to 19MM, (Full Polish)

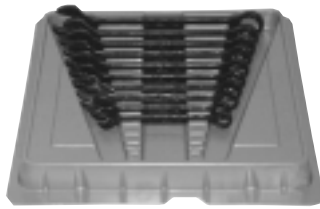


Set consists of the following Part Numbers and sizes:

CW-6MMS	6MM	CW-13MMS	13MM
CW-7MMS	7MM	CW-14MMS	14MM
CW-8MMS	8MM	CW-15MMS	15MM
CW-9MMS	9MM	CW-16MMS	16MM
CW-10MMS	10MM	CW-17MMS	17MM
CW-11MMS	11MM	CW-18MMS	18MM
CW-12MMS	12MM	CW-19MMS	19MM

WCMSB1-10ST

10 Piece Short Metric Combination Wrench Set, 12 Point, 10MM to 19MM, (Industrial Finish)

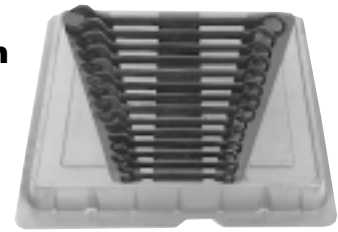


Set consists of the following Part Numbers and sizes:

CWB-10MMS	10MM	CWB-15MMS	15MM
CWB-11MMS	11MM	CWB-16MMS	16MM
CWB-12MMS	12MM	CWB-17MMS	17MM
CWB-13MMS	13MM	CWB-18MMS	18MM
CWB-14MMS	14MM	CWB-19MMS	19MM

WCMSB1-14ST

14 Piece Short Metric Combination Wrench Set, 12 Point, 6MM to 19MM, (Industrial Finish)



Set consists of the following Part Numbers and sizes:

CWB-6MMS	6MM	CWB-13MMS	13MM
CWB-7MMS	7MM	CWB-14MMS	14MM
CWB-8MMS	8MM	CWB-15MMS	15MM
CWB-9MMS	9MM	CWB-16MMS	16MM
CWB-10MMS	10MM	CWB-17MMS	17MM
CWB-11MMS	11MM	CWB-18MMS	18MM
CWB-12MMS	12MM	CWB-19MMS	19MM

Short Metric Combination Wrenches, 12 Point, (Full Polish and Industrial Finish)



12 Point, Full Polish	Part Number	12 Point, Industrial Finish	Part Number	Nominal Size	Overall Length	Head Thickness		Head Diameter	
						Box End	Open End	Box End	Open End
CW-6MMS		CWB-6MMS		6MM	4"	15/64"	3/16"	13/32"	9/16"
CW-7MMS		CWB-7MMS		7MM	4-1/4"	1/4"	13/64"	29/64"	5/8"
CW-8MMS		CWB-8MMS		8MM	4-1/2"	1/4"	7/32"	33/64"	47/64"
CW-9MMS		CWB-9MMS		9MM	4-3/4"	17/64"	7/32"	37/64"	25/32"
CW-10MMS		CWB-10MMS		10MM	5"	5/16"	15/64"	5/8"	7/8"
CW-11MMS		CWB-11MMS		11MM	5-1/4"	5/16"	1/4"	43/64"	15/16"
CW-12MMS		CWB-12MMS		12MM	5-15/16"	11/32"	9/32"	45/64"	63/64"
CW-13MMS		CWB-13MMS		13MM	6-3/8"	23/64"	19/64"	25/32"	1-3/32"
CW-14MMS		CWB-14MMS		14MM	6-3/4"	3/8"	5/16"	53/64"	1-13/64"
CW-15MMS		CWB-15MMS		15MM	7-1/8"	3/8"	21/64"	7/8"	1-17/64"
CW-16MMS		CWB-16MMS		16MM	7-1/2"	25/64"	21/64"	59/64"	1-5/16"
CW-17MMS		CWB-17MMS		17MM	7-7/8"	27/64"	11/32"	31/32"	1-7/16"
CW-18MMS		CWB-18MMS		18MM	8-1/4"	29/64"	23/64"	1"	1-31/64"
CW-19MMS		CWB-19MMS		19MM	8-7/8"	15/32"	3/8"	1-3/32"	1-9/16"

WCMXS1-10ST

10 Piece Metric Extra Short Combination Wrench Set, 12 Point, 10MM to 19MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

CW-10XS	10MM	CW-15XS	15MM
CW-11XS	11MM	CW-16XS	16MM
CW-12XS	12MM	CW-17XS	17MM
CW-13XS	13MM	CW-18XS	18MM
CW-14XS	14MM	CW-19XS	19MM

WCMXSB1-10ST

10 Piece Metric Extra Short Combination Wrench Set, 12 Point, 10MM to 19MM, (Industrial Finish)



Set consists of the following Part Numbers and sizes:

CWB-10XS	10MM	CWB-15XS	15MM
CWB-11XS	11MM	CWB-16XS	16MM
CWB-12XS	12MM	CWB-17XS	17MM
CWB-13XS	13MM	CWB-18XS	18MM
CWB-14XS	14MM	CWB-19XS	19MM

METRIC COMBINATION WRENCHES, BOX WRENCHES AND SETS

Extra Short Metric Combination Wrenches, 12 Point, (Full Polish and Industrial Finish)



12 Point, Full Polish	12 Point, Industrial Finish	Part Number	Part Number	Nominal Size	Overall Length	Head Thickness		Head Diameter	
						Box End	Open End	Box End	Open End
CW-10XS	CWB-10XS			10MM	3-55/64"	17/64"	7/32"	19/32"	53/64"
CW-11XS	CWB-11XS			11MM	4-1/32"	19/64"	15/64"	21/32"	29/32"
CW-12XS	CWB-12XS			12MM	4-13/64"	5/16"	1/4"	45/64"	63/64"
CW-13XS	CWB-13XS			13MM	4-3/8"	11/32"	17/64"	3/4"	1-5/64"
CW-14XS	CWB-14XS			14MM	4-17/32"	23/64"	9/32"	53/64"	1-5/32"
CW-15XS	CWB-15XS			15MM	4-45/64"	3/8"	19/64"	7/8"	1-1/4"
CW-16XS	CWB-16XS			16MM	4-7/8"	13/32"	5/16"	15/16"	1-5/16"
CW-17XS	CWB-17XS			17MM	5-3/64"	27/64"	21/64"	63/64"	1-13/32"
CW-18XS	CWB-18XS			18MM	5-7/32"	29/64"	11/32"	1-1/32"	1-31/64"
CW-19XS	CWB-19XS			19MM	5-25/64"	15/32"	11/32"	1-3/32"	1-9/16"

Wrenches & Striking Tools

WB1-5S

5 Piece Standard Box Wrench Set, 12 Point, 3/8" to 1", (Satin Finish)



Set consists of the following Part Numbers and sizes:

BW-1214	3/8" x 7/16"	BW-2428	3/4" x 7/8"
BW-1618	1/2" x 9/16"	BW-3032	15/16" x 1"
BW-2022	5/8" x 11/16"	K-53	Kit Bag

WBB1-5S

5 Piece Standard Box Wrench Set, 12 Point, 3/8" to 1", (Industrial Finish)



Set consists of the following Part Numbers and sizes:

BWB-1214	3/8" x 7/16"	BWB-2428	3/4" x 7/8"
BWB-1618	1/2" x 9/16"	BWB-3032	15/16" x 1"
BWB-2022	5/8" x 11/16"	K-53	Kit Bag

Standard Box Wrenches, 12 Point (Satin and Industrial Finish)



12 Point, Full Polish	12 Point, Industrial Finish	Part Number	Part Number	Nominal Size	Overall Length	Head Depths		Head Diameter	
						Box End	Open End	Box End	Open End
BW-1214	BWB-1214			3/8" x 7/16"	7-9/16"	9/32"	5/16"	9/16"	21/32"
BW-1618	BWB-1618			1/2" x 9/16"	9-3/32"	5/16"	11/32"	3/4"	53/64"
BW-2022	BWB-2022			5/8" x 11/16"	10"	7/16"	7/16"	29/32"	1"
BW-2428	BWB-2428			3/4" x 7/8"	12-1/2"	1/2"	9/16"	1-3/32"	1-1/4"
BW-3032	BWB-3032			15/16" x 1"	15-1/2"	21/32"	21/32"	1-3/8"	1-15/32"

WBMB1-5S

5 Piece Metric Standard Box Wrench Set, 12 Point, 10MM to 19MM, (Industrial Finish)



Set consists of the following Part Numbers and sizes:

BWB-1011MM	10MM x 11MM	BWB-1617MM	16MM x 17MM
BWB-1213MM	12MM x 13MM	BWB-1819MM	18MM x 19MM
BWB-1415MM	14MM x 15MM	K-53	Kit Bag

WBMP1-5S

5 Piece Metric Standard Box Wrench Set, 12 Point, 10MM to 19MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

BWP-1011MM	10MM x 11MM	BWP-1617MM	16MM x 17MM
BWP-1213MM	12MM x 13MM	BWP-1819MM	18MM x 19MM
BWP-1415MM	14MM x 15MM	K-53	Kit Bag

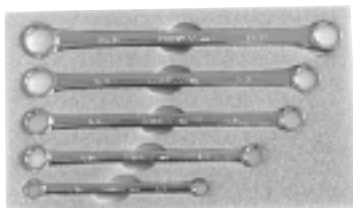
Metric Box Wrenches, 12 Point, (Industrial Finish and Full Polish)



12 Point, Industrial Finish		12 Point, Full Polish		Nominal Size	Overall Length	Head Thickness		Head Diameter	
Part Number	Part Number	Part Number	Part Number			Large End	Small End	Large End	Small End
BWB-1011MM	BWP-1011MM			10MM x 11MM	7-1/2"	5/16"	9/32"	21/32"	39/64"
BWB-1213MM	BWP-1213MM			12MM x 13MM	8-3/16"	5/16"	9/32"	3/4"	45/64"
BWB-1415MM	BWP-1415MM			14MM x 15MM	9-3/32"	11/32"	5/16"	55/64"	13/16"
BWB-1617MM	BWP-1617MM			16MM x 17MM	10"	7/16"	7/16"	1"	29/32"
BWB-1819MM	BWP-1819MM			18MM x 19MM	11-1/4"	1/2"	7/16"	1-3/32"	1-1/64"

WBWHP-5SF

**5 Piece Standard
High Performance
Box Wrench Set,
12 Point,
3/8" to 13/16"
(Full Polish)**

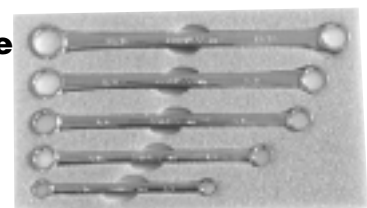


Set consists of the following Part Numbers and sizes:

BWHP-1214	3/8" x 7/16"	BWHP-2024	5/8" x 3/4"
BWHP-1618	1/2" x 9/16"	BWHP-2226	11/16" x 13/16"
BWHP-1820	9/16" x 5/8"		

WBWMHP-5SF

**5 Piece Metric
High Performance
Box Wrench Set,
12 Point,
10MM to 21MM
(Full Polish)**



Set consists of the following Part Numbers and sizes:

BWHP-1012MM	10MM x 12MM	BWHP-1719MM	17MM x 19MM
BWHP-1113MM	11MM x 13MM	BWHP-1821MM	18MM x 21MM
BWHP-1415MM	14MM x 15MM		

Standard High Performance Box Wrenches, 12 Point, (Full Polish)



12 Point, Full Polish		Nominal Size	Overall Length	Head Thickness		Head Diameter	
Part Number	Part Number			Large End	Small End	Large End	Small End
BWHP-1214		3/8" x 7/16"	6-3/8"	23/64"	23/64"	45/64"	19/32"
BWHP-1618		1/2" x 9/16"	8-11/32"	15/64"	25/64"	7/8"	53/64"
BWHP-1820		9/16" x 5/8"	9-11/16"	29/64"	29/64"	31/32"	7/8"
BWHP-2024		5/8" x 3/4"	10-1/4"	29/64"	29/64"	1-3/32"	1-1/32"
BWHP-2226		11/16" x 13/16"	11-3/32"	15/32"	15/32"	1-7/32"	1-1/32"

Metric High Performance Box Wrenches, 12 Point, (Full Polish)



12 Point, Full Polish		Nominal Size	Overall Length	Head Thickness		Head Diameter	
Part Number	Part Number			Large End	Small End	Large End	Small End
BWHP-1012MM		10MM x 12MM	6-3/8"	23/64"	23/64"	45/64"	19/32"
BWHP-1113MM		11MM x 13MM	7-7/32"	25/64"	25/64"	3/4"	21/32"
BWHP-1415MM		14MM x 15MM	8-11/32"	15/64"	25/64"	7/8"	53/64"
BWHP-1719MM		17MM x 19MM	10-1/4"	29/64"	29/64"	1-3/32"	31/32"
BWHP-1821MM		18MM x 21MM	11-3/32"	15/32"	15/32"	1-7/32"	1-1/32"

Torx® Box Wrenches

- Black oxide finish.



PART NUMBER	OPENING	PART NUMBER	OPENING
VM-WT0810	E8 x E10	VM-WT1214	E12 x E14



WARNING!

Select a wrench whose opening exactly fits the nut. Too large an opening can spread the jaws of an open-end wrench and batter the points of a box or socket wrench. Care should be exercised in selecting fractional wrenches for fractional fasteners and metric wrenches for metric fasteners. Over torquing with wrenches leads to failure and possible injury.

OPEN END AND ANGLE WRENCHES AND SETS

Standard Open End Wrenches, (Industrial Finish)



Part Number	Nominal Size	Overall Length	Head Thickness	Head Diameter	
				Small End	Large End
EWB-1214	3/8" x 7/16"	5"	13/64"	13/16"	15/16"
EWB-1618	1/2" x 9/16"	6"	1/4"	1-1/16"	1-3/16"
EWB-2022	5/8" x 11/16"	8"	5/16"	1-5/16"	1-7/16"
EWB-2426	3/4" x 13/16"	9-1/2"	23/64"	1-9/16"	1-11/16"
EWB-2830	7/8" x 15/16"	11-1/4"	13/32"	1-13/16"	1-15/16"
EWB-3032	15/16" x 1"	11-1/2"	27/64"	1-15/16"	2-1/16"

WA-9S

9 Piece Angle Wrench Set, 1/4" to 3/4" (Satin Finish)



Set consists of the following Part Numbers and sizes:

AW-0808	1/4"	AW-1818	9/16"
AW-1010	5/16"	AW-2020	5/8"
AW-1212	3/8"	AW-2222	11/16"
AW-1414	7/16"	AW-2424	3/4"
AW-1616	1/2"	K-99	Kit Bag

WA-21S

21 Piece Angle Wrench Set, 1/4" to 1-1/2", (Satin Finish)



Set consists of the following Part Numbers and sizes:

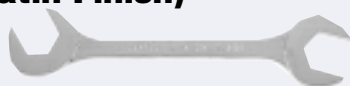
AW-0808	1/4"	AW-2424	3/4"	AW-3838	1-3/16"
AW-1010	5/16"	AW-2626	13/16"	AW-4040	1-1/4"
AW-1212	3/8"	AW-2828	7/8"	AW-4242	1-5/16"
AW-1414	7/16"	AW-3030	15/16"	AW-4646	1-7/16"
AW-1616	1/2"	AW-3232	1"	AW-4848	1-1/2"
AW-1818	9/16"	AW-3434	1-1/16"	K-210	Kit Bag
AW-2020	5/8"	AW-3636	1-1/8"		
AW-2222	11/16"	AW-4444	1-3/8"		

Standard Angle Wrenches (Satin Finish)



PART NUMBER	NOMINAL SIZE	OVERALL LENGTH	HEAD THICKNESS	HEAD DIAMETER
AW-0808	1/4"	4-1/4"	5/32"	9/16"
AW-1010	5/16"	4-1/2"	11/64"	11/16"
AW-1212	3/8"	4-3/4"	3/16"	13/16"
AW-1414	7/16"	5"	13/64"	61/64"
AW-1616	1/2"	5-1/4"	7/32"	1-1/16"
AW-1818	9/16"	5-3/4"	15/64"	1-3/16"
AW-2020	5/8"	6-1/4"	15/64"	1-5/16"
AW-2222	11/16"	6-3/4"	9/32"	1-7/16"
AW-2424	3/4"	7-1/4"	9/32"	1-7/16"
AW-2626	13/16"	7-3/4"	9/32"	1-19/32"
AW-2828	7/8"	8-1/4"	5/16"	1-11/16"
AW-3030	15/16"	8-3/4"	5/16"	1-27/32"
AW-3232	1"	9-1/2"	11/32"	2-1/16"
AW-3434	1-1/16"	10"	11/32"	2-3/16"
AW-3636	1-1/8"	10-1/2"	3/8"	2-5/16"
AW-3838	1-3/16"	11"	3/8"	2-7/16"
AW-4040	1-1/4"	11-1/2"	3/8"	2-9/16"
AW-4242	1-5/16"	12"	3/8"	2-11/16"
AW-4444	1-3/8"	12-1/2"	25/64"	2-13/16"
AW-4646	1-7/16"	13"	13/32"	2-15/16"
AW-4848	1-1/2"	13-1/2"	13/32"	3-1/16"

Metric Angle Wrenches (Satin Finish)



PART NO.	WRENCH SIZE	OVERALL LENGTH	PART NO.	WRENCH SIZE	OVERALL LENGTH
AW-9MM	9MM	4-3/4"	AW-15MM	15MM	6-1/4"
AW-10MM	10MM	5"	AW-16MM	16MM	6-1/4"
AW-11MM	11MM	5"	AW-18MM	18MM	6-3/4"
AW-12MM	12MM	5-1/4"	AW-19MM	19MM	7-1/4"



WARNING!

Select a wrench whose opening exactly fits the nut. Too large an opening can spread the jaws of an open-end wrench and batter the points of a box or socket wrench. Care should be exercised in selecting fractional wrenches for fractional fasteners and metric wrenches for metric fasteners. Over torquing with wrenches leads to failure and possible injury.

WFP2-5S

**5 Piece
Combination Flare
Nut Wrench Set,
3/8" to 5/8",
(Full Polish)**



Set consists of the following Part Numbers and sizes:

CWFP-1212	3/8"	CWFP-1818	9/16"
CWFP-1414	7/16"	CWFP-2020	5/8"
CWFP-1616	1/2"	K-52	Kit Bag

WFB2-5S

**5 Piece
Combination Flare
Nut Wrench Set,
3/8" to 5/8",
(Industrial Finish)**



Set consists of the following Part Numbers and sizes:

CWFB-1212	3/8"	CWFB-1818	9/16"
CWFB-1414	7/16"	CWFB-2020	5/8"
CWFB-1616	1/2"	K-52	Kit Bag

Combination Flare Nut Wrenches, (Industrial Finish and Full Polish)

- High polished nickel chrome plating on full polish wrenches resists rust and enhances the appearance of the tool.
- Extra thick open end for turning soft nuts without damaging.
- Split box end for tube lines.



Industrial Finish Part Number	Full Polish Part Number	Wrench Size	Overall Length	Head Thickness	Head Diameter		Flare Nut Opening
					Open End	Flare Nut End	
CWFB-1212	CWFP-1212	3/8"	5-1/4"	11/32"	13/16"	25/32"	1/4"
CWFB-1414	CWFP-1414	7/16"	5-5/8"	3/8"	31/32"	55/64"	9/32"
CWFB-1616	CWFP-1616	1/2"	6"	25/64"	1-3/32"	15/16"	11/32"
CWFB-1818	CWFP-1818	9/16"	6-3/8"	7/16"	1-1/4"	1-1/32"	3/8"
CWFB-2020	CWFP-2020	5/8"	6-3/4"	7/16"	1-3/8"	1-1/8"	7/16"
CWFB-2424	CWFP-2424	3/4"	7-1/2"	1/2"	1-9/16"	1-3/8"	9/16"
CWFB-2828	CWFP-2828	7/8"	8-1/4"	17/32"	1-13/16"	1-9/16"	11/16"

BWFP-4S

**4 Piece Double End
Flare Nut Wrench Set,
6 Point,
1/4" to 11/16",
(Full Polish)**



Set consists of the following Part Numbers and sizes:

BWFP-0810	1/4" x 5/16"	BWFP-2022	5/8" x 11/16"
BWFP-1214	3/8" x 7/16"	K-41	Kit Bag
BWFP-1618	1/2" x 9/16"		

BWFB-4S

**4 Piece Double End
Flare Nut Wrench Set,
6 Point,
1/4" to 11/16",
(Industrial Finish)**



Set consists of the following Part Numbers and sizes:

BWFB-0810	1/4" x 5/16"	BWFB-2022	5/8" x 11/16"
BWFB-1214	3/8" x 7/16"	K-41	Kit Bag
BWFB-1618	1/2" x 9/16"		

Double End Flare Nut Wrenches, 6 Point, (Industrial Finish and Full Polish)



6 Point, Industrial Finish Part Number	6 Point, Full Polish Part Number	Wrench Size	Overall Length	Head Thickness	Head Diameter		Flare Nut Opening	
					Small End	Large End	Small End	Large End
BWFB-0810	BWFP-0810	1/4" x 5/16"	5"	1/4"	39/64"	11/16"	5/32"	1/4"
BWFB-1214	BWFP-1214	3/8" x 7/16"	6"	21/64"	3/4"	27/32"	1/4"	9/32"
BWFB-1618	BWFP-1618	1/2" x 9/16"	6-7/8"	3/8"	15/16"	31/32"	11/32"	3/8"
BWFB-2022	BWFP-2022	5/8" x 11/16"	7-5/8"	29/64"	1-5/64"	1-11/64"	7/16"	1/2"

FLARE NUT AND RATCHETING BOX WRENCHES AND SETS

BWFMB-6ST

6 Piece Metric Double End Flare Nut Wrench Set, 6 Point, 9MM to 21MM, (Industrial Finish)



Set consists of the following Part Numbers and sizes:

BWFB-0911MM	9MM x 11MM	BWFB-1517MM	15MM x 17MM
BWFB-1012MM	10MM x 12MM	BWFB-1618MM	16MM x 18MM
BWFB-1314MM	13MM x 14MM	BWFB-1921MM	19MM x 21MM

BWFMP-6ST

6 Piece Metric Double End Flare Nut Wrench Set, 6 Point, 9MM to 21MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

BWFP-0911MM	9MM x 11MM	BWFP-1517MM	15MM x 17MM
BWFP-1012MM	10MM x 12MM	BWFP-1618MM	16MM x 18MM
BWFP-1314MM	13MM x 14MM	BWFP-1921MM	19MM x 21MM

Metric Double End Flare Nut Wrenches, 6 Point, (Industrial Finish and Full Polish)



Part Number	Part Number	Nominal Size	Overall Length	Head Thickness	Head Diameter		Flare Nut Opening	
					Small End	Large End	Small End	Large End
BWFB-0911MM	BWFP-0911MM	9MM x 11MM	6"	21/64"	3/4"	27/32"	1/4"	9/32"
BWFB-1012MM	BWFP-1012MM	10MM x 12MM	6-1/2"	11/32"	51/64"	29/32"	1/4"	9/32"
BWFB-1314MM	BWFP-1314MM	13MM x 14MM	6-7/8"	3/8"	15/16"	1-1/64"	3/8"	13/32"
BWFB-1517MM	BWFP-1517MM	15MM x 17MM	7-5/8"	29/64"	1-5/64"	1-11/64"	7/16"	1/2"
BWFB-1618MM	BWFP-1618MM	16MM x 18MM	8-1/16"	15/32"	1-3/32"	1-13/64"	15/32"	9/16"
BWFB-1921MM	BWFP-1921MM	19MM x 21MM	8-1/2"	33/64"	1-1/4"	1-21/64"	9/16"	5/8"

Ratcheting Box Wrenches, 6 and 12 Point



Standard Metric Ratcheting Box Wrenches, 6 and 12 Point



6 PT.	12 PT.	WRENCH SIZE	OVERALL LENGTH
RB-810		1/4" x 5/16"	4-1/2"
	RB-810D	1/4" x 5/16"	4-1/2"
RB-1214		3/8" x 7/16"	5-1/2"
	RB-1214D	3/8" x 7/16"	5-1/2"
RB-1618		1/2" x 9/16"	6-7/8"
	RB-1618D	1/2" x 9/16"	6-7/8"
	RB-2022	5/8" x 11/16"	8-1/8"
	RB-2024	5/8" x 3/4"	8-1/8"
	RB-2428	3/4" x 7/8"	9-1/4"

6 PT.	12 PT.	WRENCH SIZE	OVERALL LENGTH
RB-M0708		7MM x 8MM	4-1/2"
RB-M0910		9MM x 10MM	5-1/2"
RB-M1112		11MM x 12MM	6-7/8"
RB-M1314		13MM x 14MM	6-7/8"
	RB-M1517	15MM x 17MM	8-1/8"
	RB-M1618	16MM x 18MM	8-1/8"
	RB-M1921	19MM x 21MM	9-1/4"

CRW-8S

8 Piece SAE Ratcheting Combination Box Wrench Set, 5/16" to 3/4"



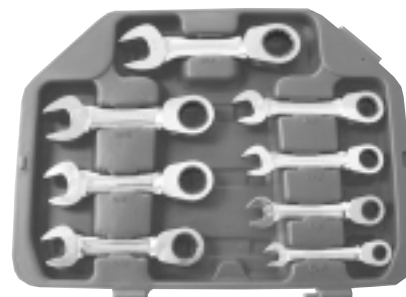
• "Hinge and snap" blow molded trays snap together for complete set in blow-molded box.

Set consists of the following Part Numbers and sizes:

CRW-1010	5/16"	CRW-1818	9/16"
CRW-1212	3/8"	CRW-2020	5/8"
CRW-1414	7/16"	CRW-2222	11/16"
CRW-1616	1/2"	CRW-2424	3/4"

CRW-8SS

8 Piece SAE Ratcheting Combination Stubby Box Wrench Set, 5/16" to 3/4"



• "Hinge and snap" blow molded trays snap together for complete set in blow-molded box.

Set consists of the following Part Numbers and sizes:

CRW-1010S	5/16"	CRW-1818S	9/16"
CRW-1212S	3/8"	CRW-2020S	5/8"
CRW-1414S	7/16"	CRW-2222S	11/16"
CRW-1616S	1/2"	CRW-2424S	3/4"

SAE Ratcheting Combination Box Wrenches, Standard and Stubby



- 72 tooth ratcheting system provides high torque and requires only a 5° swing for operation; great for working in tight areas.
- Made of a special chrome vanadium steel for superior strength and performance.
- Non-slip open end allows easy removal of damaged/worn fasteners.
- Meets or exceeds ANSI specifications.

STANDARD PART NO.	SIZE	O.A. LENGTH	STUBBY PART NO.	SIZE	O.A. LENGTH
CRW-1010	5/16"	5-5/8"	CRW-1010S	5/16"	3-3/8"
CRW-1212	3/8"	6-1/8"	CRW-1212S	3/8"	3-3/4"
CRW-1414	7/16"	6-1/2"	CRW-1414S	7/16"	3-15/16"
CRW-1616	1/2"	7"	CRW-1616S	1/2"	4-1/4"
CRW-1818	9/16"	7-5/16"	CRW-1818S	9/16"	4-1/2"
CRW-2020	5/8"	8-3/8"	CRW-2020S	5/8"	4-3/4"
CRW-2222	11/16"	9"	CRW-2222S	11/16"	5"
CRW-2424	3/4"	9-7/8"	CRW-2424S	3/4"	5-3/8"

CRW-8MS

8 Piece Metric Ratcheting Combination Box Wrench Set, 8MM to 18MM



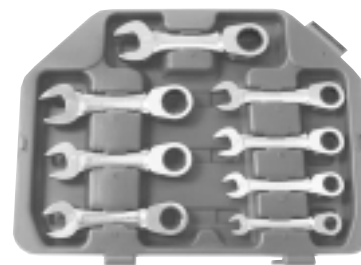
- "Hinge and snap" blow molded trays snap together for complete set in blow-molded box.

Set consists of the following Part Numbers and sizes:

CRW-8MM	8MM	CRW-14MM	14MM
CRW-10MM	10MM	CRW-15MM	15MM
CRW-12MM	12MM	CRW-17MM	17MM
CRW-13MM	13MM	CRW-18MM	18MM

CRW-8MSS

8 Piece Metric Ratcheting Combination Stubby Box Wrench Set, 8MM to 18MM



- "Hinge and snap" blow molded trays snap together for complete set in blow-molded box.

Set consists of the following Part Numbers and sizes:

CRW-8MMS	8MM	CRW-14MMS	14MM
CRW-10MMS	10MM	CRW-15MMS	15MM
CRW-12MMS	12MM	CRW-17MMS	17MM
CRW-13MMS	13MM	CRW-18MMS	18MM

CRW-12MS

12 Piece Metric Ratcheting Combination Box Wrench Set, 8MM to 19MM



- "Hinge and snap" blow molded trays snap together for complete set in blow-molded box.

Set consists of the following Part Numbers and sizes:

CRW-8MM	8MM	CRW-14MM	14MM
CRW-9MM	9MM	CRW-15MM	15MM
CRW-10MM	10MM	CRW-16MM	16MM
CRW-11MM	11MM	CRW-17MM	17MM
CRW-12MM	12MM	CRW-18MM	18MM
CRW-13MM	13MM	CRW-19MM	19MM

Metric Ratcheting Combination Box Wrenches, Standard and Stubby



- 72 tooth ratcheting system provides high torque and requires only a 5° swing for operation; great for working in tight areas.
- Made of a special chrome vanadium steel for superior strength and performance.
- Non-slip open end allows easy removal of damaged/worn fasteners.
- Meets or exceeds ANSI specifications.

STANDARD PART NO.	SIZE	O.A. LENGTH	STUBBY PART NO.	SIZE	O.A. LENGTH
CRW-8MM	8MM	5-5/8"	CRW-8MMS	8MM	3-3/8"
CRW-9MM	9MM	5-3/4"	CRW-10MMS	10MM	3-13/16"
CRW-10MM	10MM	6-1/4"	CRW-12MMS	12MM	4-1/4"
CRW-11MM	11MM	6-3/8"	CRW-13MMS	13MM	4-5/16"
CRW-12MM	12MM	6-3/4"	CRW-14MMS	14MM	4-1/2"
CRW-13MM	13MM	7"	CRW-15MMS	15MM	4-11/16"
CRW-14MM	14MM	7-1/2"	CRW-17MMS	17MM	5"
CRW-15MM	15MM	8"	CRW-18MMS	18MM	5-1/8"
CRW-16MM	16MM	8-1/2"			
CRW-17MM	17MM	9"			
CRW-18MM	18MM	9-3/8"			
CRW-19MM	19MM	9-3/4"			
CRW-21MM	21MM	10-3/4"			
CRW-22MM	22MM	11-1/8"			
CRW-24MM	24MM	11-1/2"			



WARNING!

Select a wrench whose opening exactly fits the nut. Over torquing with wrenches leads to failure and possible injury. Excessive force can cause wrench slippage. Wear safety goggles.

CRW-12MSF

12 Piece Metric Flex Head Ratcheting Combination Box Wrench Set, 8MM to 19MM



- Flex head design wrenches with 72-teeth ratcheting box end.
- Provides high torque and 5 degrees of operation.
- Swivel head design allows the head to work in any position from 0° to 180°.
- Chrome vanadium steel and special heat treat permit thin wall construction with excellent strength.
- Patented.

Set consists of the following Part Numbers and sizes:

CRW-8MF	8MM	CRW-14MF	14MM
CRW-9MF	9MM	CRW-15MF	15MM
CRW-10MF	10MM	CRW-16MF	16MM
CRW-11MF	11MM	CRW-17MF	17MM
CRW-12MF	12MM	CRW-18MF	18MM
CRW-13MF	13MM	CRW-19MF	19MM

Wrenches & Striking Tools

Metric Flex Ratcheting Combination Box Wrenches, Standard



PART NUMBER	SIZE	O.A. LENGTH
CRW-8MF	8MM	5"
CRW-9MF	9MM	5-1/8"
CRW-10MF	10MM	5-5/16"
CRW-11MF	11MM	5-1/2"
CRW-12MF	12MM	5-3/4"
CRW-13MF	13MM	6"
CRW-14MF	14MM	6-1/4"
CRW-15MF	15MM	6-9/16"
CRW-16MF	16MM	7"
CRW-17MF	17MM	7-5/16"
CRW-18MF	18MM	7-7/8"
CRW-19MF	19MM	8-3/8"

OPEN END RATCHET WRENCH SETS



ASI-60010

3 Piece Metric Open End Ratchet Wrench Set

- Set consists of the following size wrenches:

PART NO.	SIZE
ASI-40010	10mm x 12mm
ASI-40013	13mm x 14mm
ASI-40015	15mm x 17mm

ASI-60038

3 Piece SAE Open End Ratchet Wrench Set

- Set consists of the following size wrenches:

PART NO.	SIZE
ASI-20012	9/16" x 1/2"
ASI-20038	7/16" x 3/8"
ASI-20058	11/16" x 5/8"

LS-28500

Strap Wrench



- Loosen or tighten cylindrical or rectangular objects with this handy, self-tightening strap wrench that won't slip.
- Remove/install timing belt pulleys or sprockets.
- Range from 1" to 6-5/8" round.
- Tensile strength of strap is 1350 p.s.i.
- Handle is made of glass-filled polypropylene which provides superior strength.

ZZ-CL3S

3 Piece Chrome Adjustable Wrench Set



Set consists of the following Part Numbers and sizes in a plastic tray:

CL-806	6"	CL-808	8"	CL-810	10"
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ZZ-CL3NS

3 Piece Black Adjustable Wrench Set



Set consists of the following Part Numbers and sizes in a plastic tray:

CL-806N	6"	CL-808N	8"	CL-810N	10"
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CHANNELLOCK® Adjustable Wrenches



- Measurement scales (in. on front/mm on reverse) for sizing nuts, pipe and tube diameters.
- Perfectly parallel jaw and surfaces grip safely and reduce possibility of damage.
- Non-protruding jaw with thinner jaw profile for use in confined spaces.

PART NO.		LENGTH	ADJ. (0 TO __)
CHROME	BLACK		
CL-804	CL-804N	4"(114mm)	9/16"(13mm)
CL-806	CL-806N	6"(159mm)	13/16"(19mm)
CL-808	CL-808N	8"(206mm)	15/16"(24mm)
CL-810	CL-810N	10"(257mm)	1-3/16"(29mm)
CL-812	CL-812N	12"(309mm)	1-3/8"(34mm)
CL-815	CL-815N	15"(385mm)	1-3/4"(43mm)
CL-818		18"(460mm)	2-1/8"(54mm)

WBWMP-5SF

5 Piece SAE Half Moon Box Wrench Set, 12 Point, 3/8" to 13/16", (Full Polish)



Set consists of the following Part Numbers and sizes:

BWMP-1214	3/8" x 7/16"	BWMP-2024	5/8" x 3/4"
BWMP-1618	1/2" x 9/16"	BWMP-2226	11/16" x 13/16"
BWMP-1820	9/16" x 5/8"		

WBWMM-5SF

5 Piece Metric Half Moon Box Wrench Set, 12 Point, 10MM to 21MM, (Full Polish)



Set consists of the following Part Numbers and sizes:

BWM-1012MM	10MM x 12MM	BWM-1719MM	17MM x 19MM
BWM-1113MM	11MM x 13MM	BWM-1821MM	18MM x 21MM
BWM-1415MM	14MM x 15MM		

Half Moon Box Wrenches, 12 Point, (Full Polish)



PART NO.	WRENCH SIZE	OVERALL LENGTH
BWMP-1214	3/8" x 7/16"	5-3/32"
BWMP-1618	1/2" x 9/16"	6-9/16"
BWMP-1820	9/16" x 5/8"	7-17/32"
BWMP-2024	5/8" x 3/4"	8-1/4"
BWMP-2226	11/16" x 13/16"	8-7/8"

Metric Half Moon Box Wrenches, 12 Point, (Full Polish)



PART NO.	WRENCH SIZE	OVERALL LENGTH
BWM-1012MM	10MM x 12MM	5-3/32"
BWM-1113MM	11MM x 13MM	5-3/4"
BWM-1415MM	14MM x 15MM	6-9/16"
BWM-1719MM	17MM x 19MM	8-7/32"
BWM-1821MM	18MM x 21MM	8-7/8"

EK-10022

22 Piece Combination SAE Long and Metric Standard Hex Key Set



Set includes the following Part Numbers and sizes:

EK-15203	.050"	EK-15212	3/16"	EK-15505	2.5MM
EK-15204	1/16"	EK-15214	7/32"	EK-15506	3.0MM
EK-15205	5/64"	EK-15216	1/4"	EK-15508	4.0MM
EK-15206	3/32"	EK-15220	5/16"	EK-15510	5.0MM
EK-15207	7/64"	EK-15224	3/8"	EK-15512	6.0MM
EK-15208	1/8"	EK-15503	1.5MM	EK-15516	8.0MM
EK-15209	9/64"	EK-15504	2.0MM	EK-15520	10.0MM
EK-15210	5/32"				

EK-10113

13 Piece SAE Standard Hex Key Set, .050" to 3/8"



Set includes the following Part Numbers and sizes:

EK-15103	.050"	EK-15110	5/32"
EK-15104	1/16"	EK-15112	3/16"
EK-15105	5/64"	EK-15114	7/32"
EK-15106	3/32"	EK-15116	1/4"
EK-15107	7/64"	EK-15120	5/16"
EK-15108	1/8"	EK-15124	3/8"
EK-15109	9/64"		

EK-10213

13 Piece SAE Long Hex Key Set, .050" to 3/8"



Set includes the following Part Numbers and sizes:

EK-15203	.050"	EK-15210	5/32"
EK-15204	1/16"	EK-15212	3/16"
EK-15205	5/64"	EK-15214	7/32"
EK-15206	3/32"	EK-15216	1/4"
EK-15207	7/64"	EK-15220	5/16"
EK-15208	1/8"	EK-15224	3/8"
EK-15209	9/64"		

EK-10509

9 Piece Metric Standard Hex Key Set, 1.5MM to 10.0MM



Set includes the following Part Numbers and sizes:

EK-15503	1.5MM	EK-15510	5.0MM
EK-15504	2.0MM	EK-15512	6.0MM
EK-15505	2.5MM	EK-15516	8.0MM
EK-15506	3.0MM	EK-15520	10.0MM
EK-15508	4.0MM		

HEX KEY WRENCHES AND SETS

SAE Standard Hex Key Wrenches

- Made of special analysis steel and heat treated for maximum torque stress resistance.



PART NO.	SIZE	ARM LENGTH	PART NO.	SIZE	ARM LENGTH
EK-15103	.050"	1.66	EK-15110	5/32"	2.50
EK-15104	1/16"	1.75	EK-15112	3/16"	2.75
EK-15105	5/64"	1.88	EK-15114	7/32"	3.00
EK-15106	3/32"	2.00	EK-15116	1/4"	3.25
EK-15107	7/64"	2.12	EK-15120	5/16"	3.75
EK-15108	1/8"	2.25	EK-15124	3/8"	4.25
EK-15109	9/64"	2.38			

Metric Standard Hex Key Wrenches

- Made of special analysis steel and heat treated for maximum torque stress resistance.



PART NO.	SIZE	ARM LENGTH	PART NO.	SIZE	ARM LENGTH
EK-15503	1.5MM	1.73	EK-15516	8.0MM	3.84
EK-15504	2.0MM	1.93	EK-15520	10.0MM	4.29
EK-15505	2.5MM	0.69	EK-15524	12.0MM	4.80
EK-15506	3.0MM	2.42	EK-15528	14.0MM	5.37
EK-15508	4.0MM	2.68	EK-15534	17.0MM	6.14
EK-15510	5.0MM	3.08	EK-15538	19.0MM	6.91
EK-15512	6.0MM	3.46			

SAE Long Hex Key Wrenches

- Made of special analysis steel and heat treated for maximum torque stress resistance.



PART NO.	SIZE	ARM LENGTH	PART NO.	SIZE	ARM LENGTH
EK-15203	.050"	2.84	EK-15210	5/32"	4.12
EK-15204	1/16"	3.00	EK-15212	3/16"	4.50
EK-15205	5/64"	3.19	EK-15214	7/32"	4.88
EK-15206	3/32"	3.38	EK-15216	1/4"	5.25
EK-15207	7/64"	3.56	EK-15220	5/16"	6.00
EK-15208	1/8"	3.75	EK-15224	3/8"	6.75
EK-15209	9/64"	3.94			

EK-13222

22 Piece Combination SAE and Metric Balldriver® L-Wrench Set



Set includes the following Part Numbers and sizes:

EK-18203	.050"	EK-18212	3/16"	EK-18605	2.5MM
EK-18204	1/16"	EK-18214	7/32"	EK-18606	3.0MM
EK-18205	5/64"	EK-18216	1/4"	EK-18608	4.0MM
EK-18206	3/32"	EK-18220	5/16"	EK-18610	5.0MM
EK-18207	7/64"	EK-18224	3/8"	EK-18612	6.0MM
EK-18208	1/8"	EK-18603	1.5MM	EK-18616	8.0MM
EK-18209	9/64"	EK-18604	2.0MM	EK-18620	10.0MM
EK-18210	5/32"				

EK-13213

13 Piece SAE Balldriver® L-Wrench Set, .050 to 3/8"

Set includes the following Part Numbers and sizes:

EK-18203	.050"	EK-18210	5/32"
EK-18204	1/16"	EK-18212	3/16"
EK-18205	5/64"	EK-18214	7/32"
EK-18206	3/32"	EK-18216	1/4"
EK-18207	7/64"	EK-18220	5/16"
EK-18208	1/8"	EK-18224	3/8"
EK-18209	9/64"		



EK-13609

9 Piece Metric Balldriver® L-Wrench Set, 1.5MM to 10.0MM

Set includes the following Part Numbers and sizes:

EK-18603	1.5MM	EK-18610	5.0MM
EK-18604	2.0MM	EK-18612	6.0MM
EK-18605	2.5MM	EK-18616	8.0MM
EK-18606	3.0MM	EK-18620	10.0MM
EK-18608	4.0MM		



SAE Balldriver® L-Wrenches



PART NO.	SIZE	ARM LENGTH	PART NO.	SIZE	ARM LENGTH
EK-18203	.050"	2.84	EK-18210	5/32"	4.12
EK-18204	1/16"	3.00	EK-18212	3/16"	4.50
EK-18205	5/64"	3.19	EK-18214	7/32"	4.88
EK-18206	3/32"	3.38	EK-18216	1/4"	5.25
EK-18207	7/64"	3.56	EK-18220	5/16"	6.00
EK-18208	1/8"	3.75	EK-18224	3/8"	6.75
EK-18209	9/64"	3.94			

Metric Balldriver® L-Wrenches



PART NO.	SIZE	ARM LENGTH	PART NO.	SIZE	ARM LENGTH
EK-18603	1.5MM	3.03	EK-18610	5MM	4.57
EK-18604	2MM	3.19	EK-18612	6MM	5.43
EK-18605	2.5MM	3.48	EK-18616	8MM	6.20
EK-18606	3MM	3.88	EK-18620	10MM	6.58
EK-18608	4MM	4.09			

EK-53198

8 Piece SAE Cushion Grip Long Reach T-Handle Hex Key Set, 3/32" to 1/4"



Set consists of the following Part Number and sizes:

EK-51906	3/32"	EK-51910	5/32"
EK-51907	7/64"	EK-51912	3/16"
EK-51908	1/8"	EK-51914	7/32"
EK-51909	9/64"	EK-51916	1/4"

SAE Cushion Grip Long Reach T-Handle Hex Keys



- Arm length: 9"
- One piece loop handle for extra strength.
- Loop handles are more comfortable for two-hand tightening for extra leverage.

PART NO.	SIZE	HANDLE WIDTH	PART NO.	SIZE	HANDLE WIDTH
EK-51906	3/32"	3"	EK-51910	5/32"	3"
EK-51907	7/64"	3"	EK-51912	3/16"	4"
EK-51908	1/8"	3"	EK-51914	7/32"	4"
EK-51909	9/64"	3"	EK-51916	1/4"	4"

SAE Fold-Up Hex Key Sets

- Sturdy handle folds like a knife and contains most popular size hex keys.
- High quality chrome nickel alloy steel.



PART NO.	HANDLE LENGTH	NO. OF KEYS	HEX SIZES
EK-20511	5-1/4"	5	3/16", 7/32", 1/4", 5/16", 3/8"
EK-20811	3"	8	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32"
EK-20911	4-1/4"	9	5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4"

EK-22571

7 Piece TORX® Fold-Up Hex Key Set



- Use keys straight out or at right angles.
- Quality chrome nickel alloy steel, precision machined and hardened.
- Handle length: 4-1/4".
- Hex sizes: T-10, T-15, T-20, T-25, T-27, T-30, T-40.

EK-55198

8 Piece Metric Cushion Grip Long Reach T-Handle Hex Key Set, 2MM to 10MM



Set consists of the following Part Number and sizes:

EK-54920	2MM	EK-54950	5MM
EK-54925	2.5MM	EK-54960	6MM
EK-54930	3MM	EK-54980	8MM
EK-54940	4MM	EK-54990	10MM

Metric Cushion Grip Long Reach T-Handle Hex Keys

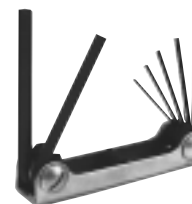


- Arm length: 9" (230MM).
- Handle marked with size and part number.
- One piece loop handle for extra strength.
- Chrome nickel alloy steel-hardened and tempered for maximum strength.
- Loop handles are more comfortable for two-hand tightening for extra leverage.
- Vinyl coated handle forms a cushion grip to absorb vibrations; reduces hand fatigue.

PART NO.	SIZE	HANDLE WIDTH	PART NO.	SIZE	HANDLE WIDTH
EK-54920	2MM	3"	EK-54950	5MM	4"
EK-54925	2.5MM	3"	EK-54960	6MM	4"
EK-54930	3MM	3"	EK-54980	8MM	6"
EK-54940	4MM	3"	EK-54990	10MM	6"

Metric Fold-Up Hex Key Sets

- Sturdy handle folds like a knife and contains most popular size hex keys.
- Can be used at any angle.
- High quality chrome nickel alloy steel.



PART NO.	HANDLE LENGTH	NO. OF KEYS	HEX SIZES
EK-21151	5-1/4" (133MM)	6	3MM, 4MM, 5MM, 6MM, 8MM, 10MM
EK-21171	3-5/8" (92.1MM)	7	1.5MM, 2MM, 2.5MM, 3MM, 4MM, 5MM, 6MM

CS-98091

9 Piece Fractional Molded Fold-Up Hex Key Set



- Blade made from 8650 premium alloy steel.
- Heat treated, black oxide finish.
- Keys rotate 270° and stay in place at any work angle.
- High-tech nylon resin case.
- Handle length: 4-1/2".
- Hex sizes: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4".

ERGO-FOLD™ Hex Key Sets

- Feature a composite grip handle shaped for superior ergonomics.
- Soft cushion-grip insert provides comfort and slip resistance.
- Color coded: Blue for Metric, Green for Torx®, and Red for Inch.
- Keys provide extra reach for safer clearance from your work.
- Can be used at a right angle to generate maximum torque; Additionally, they can be used as a screwdriver with the key folded out to a firm stop.
- Made from the highest quality 8650 chrome nickel alloy hex steel, heat treated for superior strength and finished to resist rust.

SAE Ergo-Fold™ Hex Key Sets



PART NO.	HANDLE LENGTH	NO. OF KEYS	HEX SIZES
EK-25611	5-1/2"	6	5/32", 3/16", 7/32", 1/4", 5/16", 3/8"
EK-25911	4-1/2"	9	5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4"
EK-25912	3-3/4"	9	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16"

TORX® Ergo-Fold™ Hex Key Sets



Metric Ergo-Fold™ Hex Key Sets



PART NO.	HANDLE LENGTH	NO. OF KEYS	HEX SIZES
EK-25570	5-1/2"	7	T10H, T15H, T20H, T25H, T27H, T30H, T40H
EK-25581	4-1/2"	8	T8, T10, T15, T20, T25, T27, T30, T40

PART NO.	HANDLE LENGTH	NO. OF KEYS	HEX SIZES
EK-25161	5-1/2"	6	3mm, 4mm, 5mm, 6mm, 8mm & 10mm
EK-25171	3-3/4"	7	1.5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm

CE-97397

Adjustable Flex Head Ratcheting Torque Wrench



- Set desired torque on micrometer-type scale by rotating hand grip.
- Desired torque indicated by feel and sound.
- Locks in the selected reading - setting cannot change accidentally.
- Ball bearing mounted release; no "break-in" required after storage.
- Accuracy $\pm 4\%$ right hand direction, $\pm 6\%$ left hand direction from 20% to 100% of capacity.
- Rugged non-slip metal handle.
- Heavy duty ratchet head.
- Dual English and Metric scales.
- Meets ANSI standard B107-14M.
- Furnished in a fitted case.
- Made in U.S.A.

RANGE ENGLISH (Metric-Nm)	DRIVE	GRADS ENGLISH (Metric-Nm)	LENGTH (Inches)	WEIGHT (Pounds)
25-250 ft. lb. (43.4-348.4 Nm)	1/2"	1 ft. lb. (1.4 Nm)	22.0	3.1

Dial Torque Wrenches with Memory Pointer

- Provide reliability, accuracy and durability for applications where torque measurement is extremely critical.
- All steel construction.
- 2% clockwise/counterclockwise accuracy.
- Memory Pointer retain highest torque reading for easy reference and for quality control testing, displays the maximum reading obtained to provide an excellent tool for verifying production torque applications.
- Also excellent for determining breakaway torque.
- Patented large shock resistant dials protected by heat-treated dial guards.
- Dial increment layout is derived from the trigonometric interaction of the torsion bar and dial movement.
- Patented virtually friction-free operation because floating connecting beam between the torque measuring element and the dial mechanism has no bearing points.
- Patented torsion bar design.
- All torsion bars are precision CNC machined from aircraft-quality alloy steel.

LS-28100

Torque Angle Meter



- For all torque-to-yield fastener applications.
- Commonly used for tightening head bolts and other bolts where a torque angle is required.
- Use with 1/2" drive.

OW-3559

Electronic Torque Angle Meter

- Unique piezo gyro technology.
- Angle meter clips onto standard socket extension or similar drive tool.
- Measure angle 0-199°.
- 1% CW accuracy.
- Simple arrow key operation to set desired angle, beep and flash feedback.
- Battery power provides 12 hours use.
- Auto power off.



PART NO.	SQ. DR.	CAPACITY	GRAD.	LENGTH
PRI-D2F150HM	3/8"	150 lb. in.	2.5 lb in.	9-29/32"
PRI-D2F600HM	3/8"	600 lb. in.	10 lb. in.	12-1/2"

Split-Beam Click Wrenches



PART NO.	SQ. DR.	TYPE	RANGE (lb. ft.)	GRAD.	LNTH
PRI-C2FR100F	3/8"	Flex	20-100.	2	17-5/8"
PRI-C3FR250F	1/2"	Flex	50-250	5	22-1/8"
PRI-C4D600F	3/4"	Detachable	200-600	10	48"

- Perfect solution to counter abusive environments that call for durability, while maintaining reliable, accurate operation.
- Overcomes many of the problems associated with micrometer-style click wrenches in abusive environments because the wrenches have fewer components and all critical parts are welded together at assembly.
- Setting the tool requires only fingertip force since the adjustment mechanism is not under load.
- Length is designed to provide leverage required for maximum torque applications and reach for hard-to-get-at places.
- Knurled handles provide a slip-resistant grip.
- Torque setting locks for repetitive applications.
- Patented calibration method allows calibration without disassembly.
- Patented innovative "split-beam" torque measuring mechanism provides consistent accuracy throughout the torque setting range.

Micrometer Adjustable Click Wrenches



PART NO.	SQ. DR.	TYPE	RANGE (lb. in.)	GRAD. (lb. in.)	LENGTH
PRI-M1R200H	1/4"	Rigid	40-200	1 lb. in.	9-29/32"
PRI-M2R200H	3/8"	Rigid	40-200	1 lb. in.	9-29/32"
PRI-M2FR100F	3/8"	Flex	20-100	0.5 lb. ft.	15"
PRI-M3R250F	1/2"	Rigid	50-250	1 lb. ft.	22-1/2"

- Bring reliability and accuracy to applications where a click wrench is more convenient.
- Engineered, precision bearing surfaces extend calibrated life and ensure reliable performance.
- Calibration is completely external unlike traditional mechanisms that require disassembly and the replacement of blocks and shims.
- Meets or exceeds ANSI/ASME B107.14m, GGG-W-686C, GGG-W-2843 and ISO6789.
- Patented full torque release roller allows virtual friction free click and release, even at low torque settings.
- Patented Clockwise/Counterclockwise operation with internal balance cam for the same accuracy in either direction.
- Positive stop at full scale prevents over-loading of internal mechanism; positive stop at the bottom of the scale prevents accidental disassembly.
- Patent Pending lock ring maintains wrench setting, is easy to operate with one hand and designed for a long life.

Wrenches
& Striking Tools

CORNWELL TORQUE WRENCHES

- Pull lock ring down and turn handle to adjust reading.
- Positive locking device cannot be jarred into unlock position.
- Wrench indicates desired torque by feel and sound.
- Rugged knurled metal handle for industrial use.
- Accuracy $\pm 4\%$ right hand direction, $\pm 6\%$ left hand direction.
- Meets ANSI/ASME B107.14M - 1994.
- Features English scales.
- **CTW-802FFH** features a flex head ratchet.



CTW-1002F



CTW-2503F



CTW-6004F



CTW-2001I, CTW-2502I



CTW-802FFH

PART NO.	RANGE ENGLISH	DRIVE	GRADS ENGLISH	LENGTH (Inches)	WEIGHT (Pounds)
CTW-802FFH	10-80 ft.-lb.	3/8"	0.5 ft.-lb.	16.6	2.5
CTW-1002F	10-100 ft.-lb.	3/8"	0.5 ft.-lb.	15.5	2.5
CTW-2001I	30-200 in.-lb.	1/4"	1 in.-lb.	9.75	0.75
CTW-2502I	30-250 in.-lb.	3/8"	1 in.-lb.	11	2.5
CTW-2503F	30-250 ft.-lb.	1/2"	1 ft.-lb.	21.25	3.0
CTW-6004F	100-600 ft.-lb.	3/4"	1 ft.-lb.	41	16.1

CORNWELL DIAL TORQUE WRENCHES

Reliable, sturdy torsion beam design for long life and accuracy.

- "Platinum" series offers 0 inch lbs. to 50 ft. lbs. in 3/8" drive, with accuracy of $\pm 3\%$, meets or exceeds ASME B107.14M-1994, ISO 6789 bi-directional from 20% to 100% of scale.
- Tough polycarbonate and stainless steel body.
- Low profile design.
- Comfort cushion grip.
- Rubber boot protects wrench head.
- Easy to read single scale with clear laser markings.
- Individually serialized.
- Each wrench supplied with a calibration certificate traceable to National Institute of Standards and Technology [NIST].
- Packaged in sturdy blow molded plastic box.



CTW-502FD



CTW-1502ID

PART NO.	RANGE ENGLISH	DRIVE	GRADS ENGLISH	LENGTH (Inches)	WEIGHT (Pounds)
CTW-502FD	10-50 ft.-lb.	3/8"	1 ft.-lb.	14.75	1.75
CTW-1502ID	0-150 in.-lb.	3/8"	2 in.-lb.	10.00	1.0

KDP-6S

6 Piece Drift Punch Set

Set consists of the following Part Numbers and point sizes:

DP-0407	1/8"	DP-1012	5/16"
DP-0609	3/16"	DP-1214	3/8"
DP-0710	7/32"	KB-K11	Kit Bag
DP-0812	1/4"		



KPP-4S

4 Piece Pin Punch Set

Set consists of the following Part Numbers and point sizes:

PP-0605	3/16"	PP-1206	3/8"
PP-0806	1/4"	K-41	Kit Bag
PP-1006	5/16"		



KPP-9S

9 Piece Pin Punch Set

Set consists of the following Part Numbers and point sizes:

PP-0204	1/16"	PP-0705	7/32"
PP-0304	3/32"	PP-0806	1/4"
PP-0405	1/8"	PP-1006	5/16"
PP-0505	5/32"	PP-1206	3/8"
PP-0605	3/16"	K-58	Kit Bag



KSP-4S

4 Piece Starter Punch Set

Set consists of the following Part Numbers and point sizes:

SP-0405	1/8"	SP-1007	5/16"
SP-0605	3/16"	K-41	Kit Bag
SP-0806	1/4"		



KCP-17S

17 Piece Punch and Chisel Set

Set consists of the following Part Numbers:

CC-0806	Cape Chisel	FC-2407	Flat Chisel
CP-0605	Center Punch	FC-2808	Flat Chisel
CP-0806	Center Punch	GC-0805	Round Nose Cape Chisel
DC-0807	Diamond Chisel	PP-0405	Pin Punch
DP-0407	Drift Punch	PP-0505	Pin Punch
DP-0609	Drift Punch	PP-0605	Pin Punch
FC-1205	Flat Chisel	SP-1007	Starter Punch
FC-1606	Flat Chisel	SP-0806	Starter Punch
FC-2006	Flat Chisel	K-171R	Kit Bag



KFC-5S

5 Piece Flat Chisel Set

Set consists of the following Part Numbers:

FC-1205	3/8" Cut x 5" Flat Chisel
FC-1606	1/2" Cut x 6" Flat Chisel
FC-2006	5/8" Cut x 6-1/2" Flat Chisel
FC-2407	3/4" Cut x 7" Flat Chisel
FC-2808	7/8" Cut x 8" Flat Chisel
K-55	Kit Bag



KCP-10ST

10 Piece Punch and Chisel Set

Set consists of the following Part Numbers in a plastic tray:

CP-0605	Center Punch	PP-0505	Pin Punch
FC-1205	Flat Chisel	PP-0605	Pin Punch
FC-1606	Flat Chisel	SP-0405	Starter Punch
FC-2006	Flat Chisel	SP-0605	Starter Punch
PP-0304	Pin Punch	SP-0806	Starter Punch



ZZ-BPP4S

4 Piece 8" Brass Pin Punch Set

Set consists of the following Part Numbers and sizes:

SH-77763	3/8"	SH-77766	3/4"
SH-77764	1/2"	K-41	Kit Bag
SH-77765	5/8"		

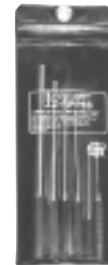


ZZ-RPP6S

6 Piece Roll Pin Punch Set

Set consists of the following Part Numbers and sizes:

PU-RPP3910	3/32"	PU-RPP3913	3/16"
PU-RPP3911	1/8"	PU-RPP3914	1/4"
PU-RPP3912	5/32"	PU-RPP3915	5/16"



WARNING!

Punches and Chisels can break or chip when struck due to improper grinding or dressing. Wear Safety Glasses. Don't allow striking ends to become badly mushroomed. Dull edges and mushroomed ends should be redressed with a hand file.

Center Punches



PART NO.	STOCK	LENGTH	POINT
CP-0605	3/8"	5-1/2"	5/32"
CP-0806	1/2"	6"	7/32"

Long Tapered Drift Punches



PART NO.	STOCK	LENGTH	POINT
DP-0407	5/16"	7"	1/8"
DP-0609	3/8"	9"	3/16"
DP-0710	7/16"	10"	7/32"
DP-0812	1/2"	12"	1/4"
DP-1012	5/8"	12-1/4"	5/16"
DP-1214	3/4"	14-1/4"	3/8"

Pin Punches



PART NO.	STOCK	LENGTH	POINT
PP-0204	5/16"	4-1/4"	1/16"
PP-0304	5/16"	4-1/2"	3/32"
PP-0405	5/16"	4-3/4"	1/8"
PP-0505	5/16"	5"	5/32"
PP-0605	5/16"	5-1/4"	3/16"
PP-0705	3/8"	5-1/2"	7/32"
PP-0806	3/8"	5-3/4"	1/4"
PP-1006	7/16"	6-1/8"	5/16"
PP-1206	1/2"	6-1/2"	3/8"

Starter Punches



PART NO.	STOCK	LENGTH	POINT
SP-0405	5/16"	5"	1/8"
SP-0605	3/8"	5-1/2"	3/16"
SP-0806	1/2"	6"	1/4"
SP-1007	5/8"	7"	5/16"

8" Brass Pin Punches



- Knurling in middle of bar for secure grip. • Made in the USA.

PART NO.	SIZE	PART NO.	SIZE
SH-77763	3/8"	SH-77765	5/8"
SH-77764	1/2"	SH-77766	3/4"

SH-77243

Brass Taper Punch



- 5/8" hex tapered to 3/8". • 8" Overall Length.

SH-77244

Brass Punch



- 3/4" diameter. • Both ends chamfered. • 10" Overall Length.

Bearing Race Punches



PART NO.	DIMENSIONS
BRP-12	12"
BRP-20	20"

SH-77603

Automatic Center Punch



- One handed center punch operation. • Eliminates need for hammer. • Fully machined and knurled handle. • Punch tip heat treated. • All parts plated.

Cape Chisel



PART NO.	STOCK	LENGTH	CUT
CC-0806	3/8"	6"	1/4"

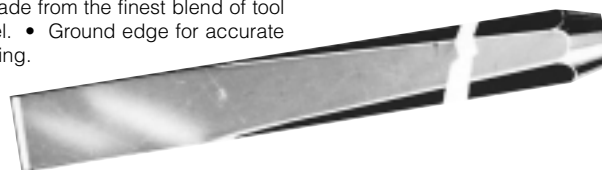
Diamond Chisel



PART NO.	STOCK	LENGTH	CUT
DC-0807	1/2"	7"	15/64"

Flat Chisels

- Made from the finest blend of tool steel. • Ground edge for accurate cutting.



PART NO.	STOCK	LENGTH	CUT
FC-1205	5/16"	5"	3/8"
FC-1606	7/16"	6"	1/2"
FC-2006	1/2"	6-1/2"	5/8"
FC-2407	5/8"	7"	3/4"
FC-2412	5/8"	12"	3/4"
FC-2808	3/4"	8"	7/8"

Round Nose Cape Chisel



PART NO.	STOCK	LENGTH	CUT
GC-0805	3/8"	5-1/4"	1/4"

VM-V160

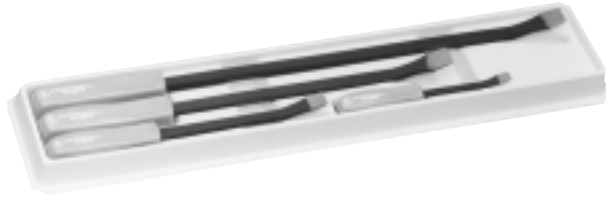
Punch and Chisel Holder



- Grips tool shank up to 1" hex or 1-1/8" round. • Zinc Oxide. • 8" Overall Length.

PBH-4ST

4 Piece Blue Handle Pry Bar Set

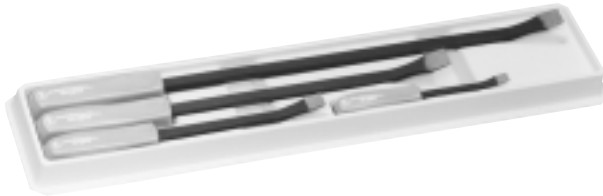


Set consists of the following Part Numbers and specifications:

PART NO.	OVERALL LENGTH	SQ. SHANK SIZE	TIP WIDTH
PBH-8	8"	1/4"	7/16"
PBH-12	12"	3/8"	11/16"
PBH-18	18"	7/16"	13/16"
PBH-24	24"	7/16"	13/16"

PBH-4NOST

4 Piece Neon Orange Handle Pry Bar Set



Set consists of the following Part Numbers and specifications:

PART NO.	OVERALL LENGTH	SQ. SHANK SIZE	TIP WIDTH
PBH-8NO	8"	1/4"	7/16"
PBH-12NO	12"	3/8"	11/16"
PBH-18NO	18"	7/16"	13/16"
PBH-24NO	24"	7/16"	13/16"

PB-4ST

4 Piece Lady Foot and Pinch Bar Set



Set consists of the following Part Numbers and specifications:

PART NO.	DESCRIPTION	OVERALL LENGTH
PB-3	1/2" Hex Pinch Bar	16"
PB-5	1/2" Hex Pry Bar	16"
PB-6	5/8" Hex Pry Bar	18"
PB-8	3/8" Hex Pry Bar	8-5/8"



WARNING!

Chipped or cracked pry bars can cause flying chips.
Pry bars can chip if struck.
Wear safety goggles.
Do not use a pry bar as a punch or hammer.

Handle Pry Bars



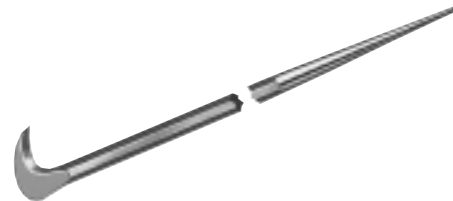
PART NO.	HANDLE COLOR	O.A. LENGTH	SQ. SHANK SIZE	TIP WIDTH
PBH-8	Blue	8"	1/4"	7/16"
PBH-8NO	Orange	8"	1/4"	7/16"
PBH-12	Blue	12"	3/8"	11/16"
PBH-12NO	Orange	12"	3/8"	11/16"
PBH-18	Blue	18"	7/16"	13/16"
PBH-18NO	Orange	18"	7/16"	13/16"
PBH-24	Blue	24"	7/16"	13/16"
PBH-24NO	Orange	24"	7/16"	13/16"
PBH-30	Blue	30"	5/8"	1-1/8"
PBH-30NO	Orange	30"	5/8"	1-1/8"
PBH-30S	Blue	30"	5/8"	1-1/8"
(Straight)				
PBH-30NOS	Orange	30"	5/8"	1-1/8"
(Straight)				
PBH-36	Blue	36"	5/8"	1-1/8"
PBH-36NO	Orange	36"	5/8"	1-1/8"

Pinch and Pry Bar



PART NO.	STOCK	OVERALL LENGTH
PB-3	1/2"	16"

"Lady Foot" Pry and Lining Up Bars



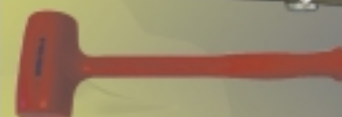
PART NO.	STOCK	OVERALL LENGTH
PB-5	1/2" Hex	16"
PB-6	5/8" Hex	18"
PB-7	3/4" Hex	24"
PB-8	3/8" Hex	8-5/8"

Pinch and Lining Up Bars

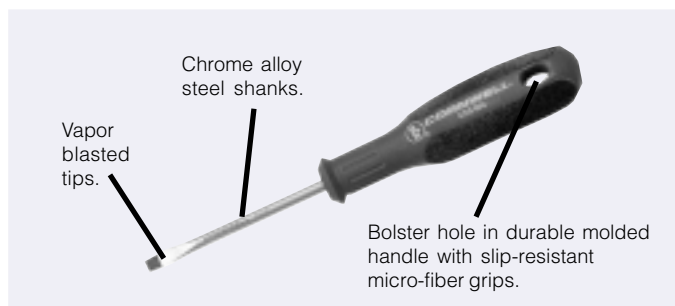


PART NO.	STOCK	OVERALL LENGTH
PB-16	1/2" Hex	16"
PB-18	5/8" Hex	18"
PB-24	3/4" Hex	24"

COMMON SERVICE



The Choice of Professionals®
- Since 1919 -



ZZ-CSP4S

Cornwell 4 Piece Phillips® Screwdriver Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CSP-103	#1 x 3" Phillips®	CSP-207	#2 x 7" Phillips®
CSP-204	#2 x 4" Phillips®	CSP-306	#3 x 6" Phillips®

ZZ-CSD5S

Cornwell 5 Piece Screwdriver Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CSP-103	#1 x 3" Phillips®	CSS-503	3" x 5/32" Flat-Tip
CSP-204	#2 x 4" Phillips®	CSS-804	4" x 1/4" Flat-Tip
CSP-306	#3 x 6" Phillips®		

ZZ-CSD4CS

Cornwell 4 Piece Cabinet Screwdriver Set

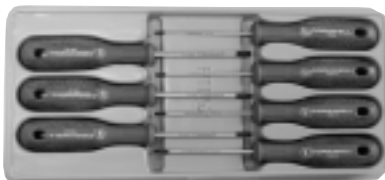


- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CSP-108	#1 x 8" Phillips®	CSS-508	8" x 5/32" Flat-Tip
CSP-114	#1 x 14" Phillips®	CSS-514	14" x 5/32" Flat-Tip

ZZ-TSD7S

Cornwell 7 Piece TamperTorx Screwdriver Set



- Set consists of the following in a plastic tray:

PART NO.	TIP SIZE	PART NO.	TIP SIZE	PART NO.	TIP SIZE
TSD-8	#8	TSD-20	#20	TSD-27	#27
TSD-10	#10	TSD-25	#25	TSD-30	#30
TSD-15	#15				

ZZ-CSD4LS

Cornwell 4 Piece Long Screwdriver Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CSP-212	#2 x 12" Phillips®	CSS-1012	12" x 5/16" Flat-Tip
CSP-218	#2 x 18" Phillips®	CSS-1018	18" x 5/16" Flat-Tip

ZZ-CSD8S

Cornwell 8 Piece Screwdriver Set



- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CSP-103	#1 x 3" Phillips®	CSS-503	3" x 5/32" Flat-Tip
CSP-204	#2 x 4" Phillips®	CSS-804	4" x 1/4" Flat-Tip
CSP-207	#2 x 7" Phillips®	CSS-1006	6" x 5/16" Flat-Tip
CSP-306	#3 x 6" Phillips®	CSS-1208	8" x 3/8" Flat-Tip

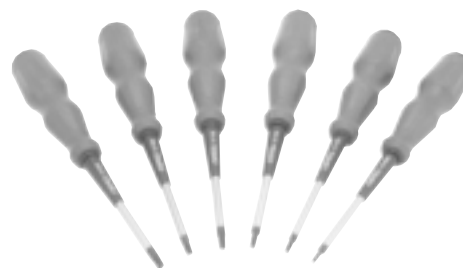


WARNING!

Do not use a screwdriver as a prybar, chisel or punch.

VM-TDI100

Cornwell 6 Piece Torx® Screwdriver Set, T10 to T30



- Screwdrivers feature blue ergo handles with 4" blades.

- Set consists of the following:

PART NO.	TIP SIZE	PART NO.	TIP SIZE
VM-TDI10	T10	VM-TDI25	T25
VM-TDI15	T15	VM-TDI27	T27
VM-TDI20	T20	VM-TDI30	T30

CSP-7S

Cornwell 7 Piece Precision Screwdriver Set



Set consists of the following:

PART NO.	TYPE	SIZE	PART NO.	TYPE	SIZE
CSP-01	Slotted	XS	CSP-P00	Phillips®	#00
CSP-02	Slotted	S	CSP-P0	Phillips®	#0
CSP-03	Slotted	M	CSP-P1	Phillips®	#1
CSP-04	Slotted	L			

Cornwell Flat-Tip Screwdrivers



• The following can be used to replace screwdrivers in the ZZ-CSD5S, ZZ-CSD8S, ZZ-CSD4CS, and ZZ-CSD4LS sets.

PART NUMBER	BLADE EXTENSION	TIP WIDTH	OVERALL LENGTH
CSD-201	1"	1/4"	3-1/4"
CSS-503	3"	5/32"	7-7/8"
CSS-508	8"	5/32"	12"
CSS-514	14"	5/32"	18"
CSS-804	4"	1/4"	9-3/8"
CSS-1006	6"	5/16"	11-3/8"
CSS-1012	12"	5/16"	17-1/4"
CSS-1018	18"	5/16"	28"
CSS-1208	8"	3/8"	13-1/4"

Cornwell Phillips® Screwdrivers



• The following can be used to replace screwdrivers in the ZZ-CSD5S, ZZ-CSD8S, ZZ-CSD4CS, ZZ-CSD4LS, and ZZ-CSP4S sets.

PART NUMBER	POINT SIZE	BLADE DIA.	BLADE EXTENSION	OVERALL LENGTH
CSP-103	#1	5/32"	3"	8-1/4"
CSP-108	#1	5/32"	8"	12"
CSP-114	#1	5/32"	14"	18"
CSP-201	#2	1/4"	1"	3-1/4"
CSP-204	#2	1/4"	4"	9-3/8"
CSP-207	#2	1/4"	7"	12-1/2"
CSP-212	#2	1/4"	12"	16"
CSP-218	#2	1/4"	18"	22"
CSP-306	#3	1/4"	6"	11-1/4"



WARNING!

Use approved eye protection when using tools.
Read operating instructions thoroughly.

Cornwell TamperTorx Screwdrivers



• The following can be used to replace screwdrivers in the ZZ-TSD7S set.

PART NUMBER	BLADE EXTENSION	BLADE DIAMETER	BLADE TIP	OVERALL LENGTH
TSD-8	3-1/2"	1/4"	#8	7-1/2"
TSD-10	3-1/2"	1/4"	#10	7-1/2"
TSD-15	3-1/2"	1/4"	#15	7-1/2"
TSD-20	3-1/2"	1/4"	#20	7-1/2"
TSD-25	3-1/2"	1/4"	#25	7-1/2"
TSD-27	3-1/2"	1/4"	#27	7-1/2"
TSD-30	3-1/2"	1/4"	#30	7-1/2"

HEAVY DUTY SCREWDRIVERS



PART NUMBER	BLADE LENGTH	STOCK SIZE	TIP WIDTH	OVERALL LENGTH
SSD-824P	21-7/16"	1/4" Sq.	.312"	25-23/32"
SSD-1619P	19"	1/2" Sq.	5/8"	24-11/16"

CBD-11

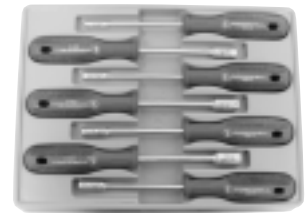
Cornwell 11" Bit Driver



• Magnetic bit holder with 118 mm blue Cornwell handle with fuzz finish and finger guide. • Holds 1/4" hex shank bits.

ZZ-CND7S

7 Piece Cornwell Nut Driver Set

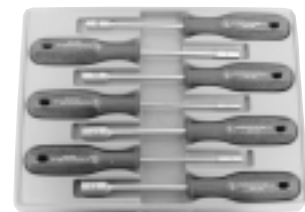


• Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CND-08	1/4" Nut Driver	CND-12	3/8" Nut Driver
CND-09	9/32" Nut Driver	CND-14	7/16" Nut Driver
CND-10	5/16" Nut Driver	CND-16	1/2" Nut Driver
CND-11	11/32" Nut Driver		

ZZ-CND7MS

7 Piece Metric Cornwell Nut Driver Set



• Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CND-05M	5mm Nut Driver	CND-10M	10mm Nut Driver
CND-05.5M	5.5mm Nut Driver	CND-12M	12mm Nut Driver
CND-07M	7mm Nut Driver	CND-13M	13mm Nut Driver
CND-08M	8mm Nut Driver		

MN-45141

Magnetic 1/4" Hex Bit Holder

- Provides excellent efficiency when driving recessed head screws. • Permanent magnet in holder transfers magnetic energy to insert bit for holding screws being driven. • 1/4" Hex Shank.

OVERALL LENGTH	BODY DIAMETER	NOSE DIAMETER
1-3/4"	3/8"	3/8"



MN-45142

1/4" Hex Socket Adapter

- Inserts into magnetic screwdriver to allow the use of 1/4" square drive sockets.



SCREW STARTERS

- 1" permanent magnet to retrieve dropped washers, screws or nuts. • Aluminum handles with pocket clips.



PART NO.	DESCRIPTION	O/A LENGTH
UL-PD10	Phillips®	5-3/4"
UL-D-2	Standard Slotted	5-5/8"

SK-SPK-7000B

Rollerdriver®/Overdriver® Multidriver Pro Kit

- Stubby Rollerdriver® with silent, ratchet-action driver and magnetic locking collet. • Overdriver® 2-speed ratcheting driver with locking collet. • 2-position Pentagrip™ contoured drive handle with integrated snap-cap storage compartment. • Forty interchangeable 1/4" insert bits. • Two magnetic stainless steel extensions. • Easy open injection molded kit box featuring 2-tiered component storage with dividers. • Removable, spill-resistant component tray. • Parts interchange to make hundreds of straight, pistol-grip and stubby screwdriver combinations. • Use components with all 1/4" cordless drivers. • Includes 26 bits (4 flat, 3 Phillips®, 7 sockets, 7 Allen®, 5 Torx®), 2 magnetic extensions (1-7/8", and 6") in a heavy duty black kit box.



SK-SPK-6000B

Skewdriver®/Rollerdriver® Pro Kit

- Skewdriver® high capacity, bevel-gear offset head with 12-position locking stabilizer wing. • Rollerdriver® 2-position, "Pentagrip" ratchet-action handle with snap-cap storage compartment. • Forty interchangeable 1/4" insert bits. • Two magnetic stainless steel extensions. • Parts interchange to make various straight & offset combinations. • Removable handle permits use with all 1/4" cordless drivers. • Injection molded kit box has 2-tiered component storage with dividers. • Removable, spill-resistant component tray. • Includes 26 bits (4 flat, 3 Phillips®, 7 sockets, 7 Allen®, 5 Torx®), 2 magnetic extensions (1-7/8", and 6") in a heavy duty black kit box.



SK-RD3001

Rollerdriver® with 4 Bits

- Silent, ratchet action precision drive clutch. • Fluted, comfort-grip drive handle. • Integrated snap-cap storage compartment. • Rugged aircraft-aluminum drive shaft with magnetic 1/4" bit holder. • Includes four bits (two Phillips® and two slotted).



SK-PGS-5110

Stubby Ratcheting Screwdriver with Collet

- 2"-long Pentagrip™ contoured drive handle. • Silent, ratchet-action precision drive clutch.



SK-PSP-5200

Skewdriver®

- Heavy duty die-cast construction with high capacity hardened gears and rings. • Silent, ratchet-action RollerDriver clutch mechanism. • Removable "Pentagrip" contoured drive handle permits use with all 1/4" cordless drivers. • 12-position locking stabilizer wing provides ergonomic control. • Includes five bits (2 slotted, 2 Phillips®, and a T15 Torx® type). • Black nickel/chrome finish.



SK-OD2001

Overdriver® with 4 Bits

- 2-speed, silent, ratchet-action precision drive clutch. • Shifttable, heavy-duty, overdrive speed gear provides 1:1 and 4:1 speed ratios. • Fluted, comfort-grip drive handle. • Integrated snap-cap storage compartment. • Rugged alloy drive shaft with magnetic 1/4" bit holder. • Includes four bits (2 slotted and 2 Phillips®).



Magnetic Extensions



- Standard 1/4" hex drive shaft. • Brushed stainless steel construction. • Use with locking collet models or cordless drivers.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SK-EX3	3" length	SK-EX9	9" length
SK-EX6	6" length	SK-EX12	12" length

RB-5370

5 Piece Bit Ratcheting Screwdriver Set

- Designed for installing or removing screws quickly and easily. • Ideal tool for home, auto, marine, or hobby use. • Tool parts are heat treated and nickel plated for durability, appearance, and long tool life. • Set includes ratcheting screwdriver and four (4) bits: #1 Phillips, #2 Phillips, 1/4" slotted, and 9/32" slotted.



RB-5278

7 Piece Ratcheting Box Wrench Set



- Designed for installing or removing screws quickly and easily.
- Ideal for home, auto, marine and hobbies.
- Angled ratcheting bit wrenches access various locations.
- Magnet in each wrench securely holds 1/4" hex bits.
- Tool parts are heat treated and nickel plated.
- Vinyl grips for comfort.
- Consists of three 1/4" bit wrenches (two offset and one flat) and one of each of the following 1/4" bits: #1 Phillips®, #2 Phillips®, 1/4" slotted, and 9/32" slotted.

RB-BT810

Offset Ratcheting Screwdriver Bit Wrench



- Thin offset heads for obstruction clearance and knurled finger knobs for loosening fasteners.
- Holds 1/4" x 5/16" hex bits with retaining ring.
- Chrome finish.

RB-5125

Hex Bit Extension



- 5/16" hex bit extension helps when brake lines or hoses are in the way.

ZZ-IMP210S

10 Piece Impact Driver Bit Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
JA-IMP210	3/8" Dr. Impact Driver	MN-35353	5/16" Hex x No. 2 Phillips Bit
MN-27192	5/16" Hex x 9/32" Slotted Bit	MN-35354	5/16" Hex x No. 4 Phillips Bit
MN-27194	5/16" Hex x 5/16" Slotted Bit	MN-48280	5/16" Hex x No. 3 Phillips Bit
MN-27195	5/16" Hex x 23/64" Slotted Bit	VM-HS6516	3/8" Drive x 5/16" Hex Bit Holder
MN-35352	5/16" Hex x No. 1 Phillips Bit	BX-011	Utility Box

JA-IMP210

Hand Impact Driver



- 3/8" Drive.
- Length: 4-3/4".



WARNING!

Screwdriver handles are not intended to act as insulation and do not protect from electrical shock.

CBS-D410S

41 Piece Bit Set with Ratcheting Driver



- Kit includes a PVC holder and the following in a blue Cornwell blow-molded case:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CBS-GD	Gearless Driver	CBT-PH1	#1 Phillips® Anti-Slip
CBT-14	1/4" Slotted	CBT-PH1L	2" Long #1 Phillips®
CBT-14L	2" Long 1/4" Slotted	CBT-PH2	#2 Phillips® Anti-Slip
CBT-18	1/8" Slotted	CBT-PH2L	2" Long #2 Phillips®
CBT-316	3/16" Slotted	CBT-PH3	#3 Phillips® Anti-Slip
CBT-316L	2" Long 3/16" Slotted	CBT-PZ0	#0 Pozzi® Anti-Slip
CBT-350SBA	Bit Adapter	CBT-PZ1	#1 Pozzi® Anti-Slip
CBT-532	5/32" Slotted	CBT-PZ2	#2 Pozzi® Anti-Slip
CBT-732	7/32" Slotted	CBT-PZ3	#3 Pozzi® Anti-Slip
CBT-932	9/32" Slotted	CBT-QCC	Quick Change Chuck
CBT-D290BA	Bit Adapter	CBT-S0	S0 Square
CBT-H14	1/4" Hex	CBT-S1	S1 Square
CBT-H18	1/8" Hex	CBT-S2	S2 Square
CBT-H316	3/16" Hex	CBT-T10H	#10 Tamperproof
CBT-H332	3/32" Hex	CBT-T15H	#15 Tamperproof
CBT-H532	5/32" Hex	CBT-T20H	#20 Tamperproof
CBT-H564	5/64" Hex	CBT-T25H	#25 Tamperproof
CBT-H732	7/32" Hex	CBT-T27H	#27 Tamperproof
CBT-H764	7/64" Hex	CBT-T30H	#30 Tamperproof
CBT-PH0	#0 Phillips® Anti-Slip	CBT-T40H	#40 Tamperproof

CBS-350S

35 Piece 1/4" Drive Power Bit Assortment



- Kit includes the following in a PVC holder:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CBT-14	1/4" Slotted	CBT-PH2	#2 Phillips® Anti-Slip
CBT-18	1/8" Slotted	CBT-PH3	#3 Phillips® Anti-Slip
CBT-316	3/16" Slotted	CBT-PZ0	#0 Pozzi® Anti-Slip
CBT-350SBA	Bit Adapter	CBT-PZ1	#1 Pozzi® Anti-Slip
CBT-532	5/32" Slotted	CBT-PZ2	#2 Pozzi® Anti-Slip
CBT-732	7/32" Slotted	CBT-PZ3	#3 Pozzi® Anti-Slip
CBT-932	9/32" Slotted	CBT-QCC	Quick Change Chuck
CBT-H14	1/4" Hex	CBT-S0	S0 Square
CBT-H18	1/8" Hex	CBT-S1	S1 Square
CBT-H316	3/16" Hex	CBT-S2	S2 Square
CBT-H332	3/32" Hex	CBT-T10H	#10 Tamperproof
CBT-H532	5/32" Hex	CBT-T15H	#15 Tamperproof
CBT-H564	5/64" Hex	CBT-T20H	#20 Tamperproof
CBT-H732	7/32" Hex	CBT-T25H	#25 Tamperproof
CBT-H764	7/64" Hex	CBT-T27H	#27 Tamperproof
CBT-PH0	#0 Phillips® Anti-Slip	CBT-T30H	#30 Tamperproof
CBT-PH1	#1 Phillips® Anti-Slip	CBT-T40H	#40 Tamperproof

CBS-GD

Gearless Driver



- Designed for use with CBS-D410S.

SKA-211S

11 Piece Hex Bit Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
AB-1406	7/16" X 3/16" Hex Bit	AB-1416	7/16" x 1/2" Hex Bit
AB-1407	7/16" X 7/32" Hex Bit	AB-1418	7/16" X 9/16" Hex Bit
AB-1408	7/16" x 1/4" Hex Bit	AB-1420	7/16" x 5/8" Hex Bit
AB-1410	7/16" x 5/16" Hex Bit	PS-2214	3/8" x 7/16" Hex Bit Holder
AB-1412	7/16" x 3/8" Hex Bit	EK-15106	Hex Wrench
AB-1414	7/16" x 7/16" Hex Bit	BX-21	Metal Box

SKA-311S

11 Piece Hex Bit Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
AB-1406	7/16" X 3/16" Hex Bit	AB-1418	7/16" X 9/16" Hex Bit
AB-1407	7/16" x 7/32" Hex Bit	AB-1420	7/16" X 5/8" Hex Bit
AB-1408	7/16" x 1/4" Hex Bit	PS-3214A	1/2" x 7/16" Hex Bit Holder
AB-1410	7/16" x 5/16" Hex Bit	EK-15108	Hex Wrench
AB-1412	7/16" x 3/8" Hex Bit	BX-21	Metal Box
AB-1414	7/16" x 7/16" Hex Bit		
AB-1416	7/16" X 1/2" Hex Bit		

VM-VBH1038A

10 Piece Hex Bit Set



- Set consists of the following in a vinyl holder:

PART NO.	NOMINAL	PART NO.	NOMINAL
VM-VB5603	3/32"	VM-VB5610	5/16"
VM-VB5603A	7/64"	VM-VB5612	3/8"
VM-VB5604	1/8"	VM-H614(8)	3/8" Drive x 1/4" Bit Holders
VM-VB5604A	9/64"	VM-H638	3/8" Drive x 3/8" Bit Holder
VM-VB5605	5/32"	VM-H6516	3/8" Drive x 5/16" Bit Holder
VM-VB5606	3/16"		
VM-VB5607	7/32"		
VM-VB5608	1/4"		

ZZ-HB206S

6 Piece Hex Bit Set



- Set consists of the following:

PART NO.	NOMINAL
MN-27265	5/16" Hex x 5/32" Hex Bit
MN-27266	5/16" Hex x 3/16" Hex Bit
MN-27270	5/16" Hex x 3/8" Hex Bit
MN-37560	5/16" Hex x 7/32" Hex Bit
MN-37561	5/16" Hex x 1/4" Hex Bit
MN-37562	5/16" Hex x 5/16" Hex Bit
VM-HS6516(6)	3/8" Dr. x 5/16" Hex Bit Holder
ST-2C(6)	3/8" Clips
ST-1R	Rail

ZZ-DBC7S

7 Piece Disc Brake Caliper Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MN-27270	5/16" Hex x 3/8" Hex Bit	MN-42898	5/16" Hex x T40 Torx® Bit
MN-35375	5/16" Hex x T45 Torx® Bit	VM-HS6516(7)	3/8" Drive x 5/16" Hex Bit Holders
MN-35376	5/16" Hex x T50 Torx® Bit	ST-2C(7)	3/8" Clips
MN-36548	5/16" Hex x 8MM Hex Bit	ST-2R	Rail
MN-37561	5/16" Hex x 1/4" Hex Bit		
MN-37562	5/16" Hex x 5/16" Hex Bit		

CBS-702SXL

7 Piece Extra Long Hex Bit Socket Set

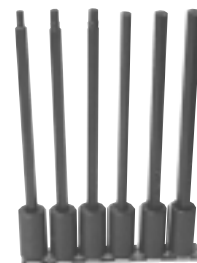


- Set consists of the following Extra Long hex bit sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-142XL	3/8"	1/4"	CBS-5162XL	3/8"	5/16"
CBS-180XL	1/4"	1/8"	CBS-5320XL	1/4"	5/32"
CBS-382XL	3/8"	3/8"	CBS-7322XL	3/8"	7/32"
CBS-3160XL	1/4"	3/16"			

ZZ-6XLHBS

6 Piece Extra Long Hex Bit Set



- Set consists of the following:

PART NO.	NOMINAL
VM-VB5605XL	1/4" Hex x 5/32" Hex Bit
VM-VB5606XL	1/4" Hex x 3/16" Hex Bit
VM-VB5607XL	1/4" Hex x 7/32" Hex Bit
VM-VB5608XL	1/4" Hex x 1/4" Hex Bit
VM-VB5610XL	5/16" Hex x 5/16" Hex Bit
VM-VB5612XL	3/8" Hex x 3/8" Hex Bit
VM-H614(4)	3/8" Drive x 1/4" Bit Holder
VM-H638	3/8" Drive x 3/8" Bit Holder
VM-H6516	3/8" Drive x 5/16" Bit Holder
ST-1R	Socket Rail
ST-2C(6)	3/8" Clips



WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

SKA-309RMS

9 Piece Metric Hex Bit Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
AB-1405MM	7/16" X 5MM Hex Bit	AB-1417MM	7/16" x 17MM Hex Bit
AB-1406MM	7/16" x 6MM Hex Bit	AB-1419MM	7/16" x 19MM Hex Bit
AB-1408MM	7/16" x 8MM Hex Bit	PS-3214A	1/2" x 7/16" Hex Bit
AB-1410MM	7/16" x 10MM Hex Bit		Holder
AB-1412MM	7/16" x 12MM Hex Bit	ST-86	Tray
AB-1414MM	7/16" x 14MM Hex Bit		

ZZ-207MS

7 Piece Metric Hex Bit Set



- Set consists of the following:

PART NO.	DESCRIPTION
MN-36544	5/16" Hex x 3MM Hex Bit
MN-36545	5/16" Hex x 4MM Hex Bit
MN-36546	5/16" Hex x 5MM Hex Bit
MN-36547	5/16" Hex x 6MM Hex Bit
MN-36548	5/16" Hex x 8MM Hex Bit
MN-36549	5/16" Hex x 10MM Hex Bit
MN-44997	5/16" Hex x 7MM Hex Bit
VM-HS6516(7)	3/8" Dr. x 5/16" Hex Bit Hldrs
ST-2C(7)	3/8" Clips
ST-2R	Rail

VM-VBH210M

10 Piece Metric Hex Bit Set

- Ten metric bits in alloy steel holders on a rail.
- Retainer spring holds bit in holder.
- Holders and bits have black oxide finish.



PART NO.	NOMINAL	PART NO.	NOMINAL	PART NO.	NOMINAL
VM-VB56M2	2MM	VM-VB56M6	6MM	VM-H614(6)	3/8" Dr. x 1/4" Bit Holder
VM-VB56M2A	2.5MM	VM-VB56M7	7MM	VM-H6516(2)	3/8" Dr. x 5/16" Bit Holder
VM-VB56M3	3MM	VM-VB56M8	8MM	VM-H6716(2)	3/8" Dr. x 7/16" Bit Holder
VM-VB56M4	4MM	VM-VB56M9	9MM		
VM-VB56M5	5MM	VM-VB56M10	10MM		

ZZ-6XLMHBS

6 Piece Extra Long Metric Hex Bit Set



- Set includes the following in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-VB56M4XL	1/4" Hex x 4MM Hex Bit	VM-H6516(2)	3/8" Dr. x 5/16" Bit Holder
VM-VB56M5XL	1/4" Hex x 5MM Hex Bit	VM-H6716	3/8" Dr. x 7/16" Bit Holder
VM-VB56M6XL	1/4" Hex x 6MM Hex Bit	ST-1R	Socket Rail
VM-VB56M7XL	5/16" Hex x 7MM Hex Bit	ST-2C(6)	3/8" Clips
VM-VB56M8XL	5/16" Hex x 8MM Hex Bit		
VM-VB56M10XL	7/16" Hex x 10MM Hex Bit		
VM-H614(3)	3/8" Dr. x 1/4" Bit Holder		

CBS-M702SXL

7 Piece Extra Long Metric Hex Bit Socket Set



- Set consists of the following Extra Long hex bit sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-M40XL	1/4"	4mm	CBS-M82XL	3/8"	8mm
CBS-M50XL	1/4"	5mm	CBS-M92XL	3/8"	9mm
CBS-M60XL	1/4"	6mm	CBS-M102XL	3/8"	10mm
CBS-M72XL	3/8"	7mm			

CBS-1402S

14 Piece 1/4" and 3/8" Fractional and Metric Hex Bit Socket Set



- Set consists of the following hex bit sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-142	3/8"	1/4"	CBS-M40	1/4"	4mm
CBS-180	1/4"	1/8"	CBS-M50	1/4"	5mm
CBS-382	3/8"	3/8"	CBS-M60	1/4"	6mm
CBS-3160	1/4"	3/16"	CBS-M72	3/8"	7mm
CBS-5162	3/8"	5/16"	CBS-M82	3/8"	8mm
CBS-5320	1/4"	5/32"	CBS-M92	3/8"	9mm
CBS-7322	3/8"	7/32"	CBS-M102	3/8"	10mm

CBS-1402SXL

14 Piece 1/4" and 3/8" Extra Long Fractional and Metric Hex Bit Socket Set



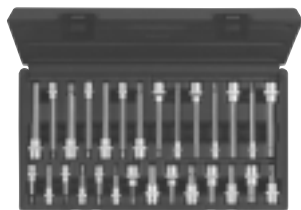
- Set consists of the following hex bit sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-142XL	3/8"	1/4"	CBS-M40XL	1/4"	4mm
CBS-180XL	1/4"	1/8"	CBS-M50XL	1/4"	5mm
CBS-382XL	3/8"	3/8"	CBS-M60XL	1/4"	6mm
CBS-3160XL	1/4"	3/16"	CBS-M72XL	3/8"	7mm
CBS-5162XL	3/8"	5/16"	CBS-M82XL	3/8"	8mm
CBS-5320XL	1/4"	5/32"	CBS-M92XL	3/8"	9mm
CBS-7322XL	3/8"	7/32"	CBS-M102XL	3/8"	10mm

CBS-2802S

28 Piece 1/4" and 3/8" Standard and Extra Long SAE and Metric Hex Bit Socket Set

- Set consists of the following hex bit sockets:



SAE				METRIC			
STANDARD	EXTRA LONG	DRIVE	SIZE	STANDARD	EXTRA LONG	DRIVE	SIZE
PART NO.	PART NO.			PART NO.	PART NO.		
CBS-142	CBS-142XL	3/8"	1/4"	CBS-M40	CBS-M40XL	1/4"	4mm
CBS-180	CBS-180XL	1/4"	1/8"	CBS-M50	CBS-M50XL	1/4"	5mm
CBS-382	CBS-382XL	3/8"	3/8"	CBS-M60	CBS-M60XL	1/4"	6mm
CBS-3160	CBS-3160XL	1/4"	3/16"	CBS-M72	CBS-M72XL	3/8"	7mm
CBS-5162	CBS-5162XL	3/8"	5/16"	CBS-M82	CBS-M82XL	3/8"	8mm
CBS-5320	CBS-5320XL	1/4"	5/32"	CBS-M92	CBS-M92XL	3/8"	9mm
CBS-7322	CBS-7322XL	3/8"	7/32"	CBS-M102	CBS-M102XL	3/8"	10mm

VM-BHI100

10 Piece Hex and Ball Hex Set

- 7" long drive blades - hex on one end and ball hex on opposite end.
- S2 high alloy steel blades, satin chrome plated.
- Two way handle can be used as a screwdriver or as a T-Handle.
- Ratcheting "T" handle.
- Quick change bit setup.



- Set consists of the following in a plastic storage case:

PART NO.	DESCRIPTION
VM-BHI04	1/8" Hex/Ball Hex Blade
VM-BHI04A	9/64" Hex/Ball Hex Blade
VM-BHI05	5/32" Hex/Ball Hex Blade
VM-BHI06	3/16" Hex/Ball Hex Blade
VM-BHI07	7/32" Hex/Ball Hex Blade
VM-BHI08	1/4" Hex/Ball Hex Blade
VM-BHI10	5/16" Ball Hex Blade
VM-BHI10H	5/16" Hex Blade
VM-THR100	Ratcheting "T" Handle
VM-TH2W100	2-Way Screwdriver & T-Handle

VM-BHM100

10 Piece Metric Hex and Ball Hex Set

- 7" long drive blades - hex on one end and ball hex on opposite end.
- S2 high alloy steel blades, satin chrome plated.
- Two way handle can be used as a screwdriver or as a T-Handle.
- Ratcheting "T" handle.
- Quick change bit setup.



- Set consists of the following in a plastic storage case:

PART NO.	DESCRIPTION
VM-BHM2	2MM Hex/Ball Hex Blade
VM-BHM2.5	2.5MM Hex/Ball Hex Blade
VM-BHM3	3MM Hex/Ball Hex Blade
VM-BHM4	4MM Hex/Ball Hex Blade
VM-BHM5	5MM Hex/Ball Hex Blade
VM-BHM6	6MM Hex/Ball Hex Blade
VM-BHM8	8MM Ball Hex Blade
VM-BHM8H	8MM Hex Blade
VM-THR100	Ratcheting "T" Handle
VM-TH2W100	2-Way Screwdriver & T-Handle

CBS-B702S

7 Piece 1/4" and 3/8" Drive Ball Hex Bit Socket Set



- Set consists of one of each of the following Hex Bit Sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-B142	3/8"	1/4"	CBS-B5162	3/8"	5/16"
CBS-B180	1/4"	1/8"	CBS-B5320	1/4"	5/32"
CBS-B382	3/8"	3/8"	CBS-B7322	3/8"	7/32"
CBS-B3160	1/4"	3/16"			

CBS-MB702S

7 Piece 1/4" and 3/8" Drive Metric Ball Hex Bit Socket Set



- Set consists of one of each of the following Metric Hex Bit Sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-MB40	1/4"	4MM	CBS-MB82	3/8"	8MM
CBS-MB50	1/4"	5MM	CBS-MB92	3/8"	9MM
CBS-MB60	1/4"	6MM	CBS-MB102	3/8"	10MM
CBS-MB72	3/8"	7MM			

CBS-MB702SXL

7 Piece 1/4" and 3/8" Drive Extra Long Metric Ball Hex Bit Socket Set



- Industrial strength S2 steel bits.
- Chrome vanadium sockets.

- Set consists of the following:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-MB40XL	1/4"	4MM	CBS-MB82XL	3/8"	8MM
CBS-MB50XL	1/4"	5MM	CBS-MB92XL	3/8"	9MM
CBS-MB60XL	1/4"	6MM	CBS-MB102XL	3/8"	10MM
CBS-MB72XL	3/8"	7MM			

VM-VBD1060

12 Piece Torx® Driver Set



- One-piece units made from S2 type alloy steel with a black oxide finish.
- Easy system for driving Torx® screws widely used in automotive, appliance, and lawn and garden equipment.
- Assembled in a vinyl holder.
- Set consists of the following:

PART NO.	TORX® DRIVE SIZE	PART NO.	TORX® DRIVE SIZE
VM-VBD10	TX10 1/4"	VM-VBD40	TX40 3/8"
VM-VBD15	TX15 1/4"	VM-VBD45	TX45 3/8"
VM-VBD20	TX20 1/4"	VM-VBD47	TX47 3/8"
VM-VBD25	TX25 1/4"	VM-VBD50	TX50 3/8"
VM-VBD27	TX27 1/4"	VM-VBD55	TX55 3/8"
VM-VBD30	TX30 1/4"	VM-VBD60	TX60 1/2"



WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

CBS-MTX34S

34 Piece Master Torx® Set



- Industrial strength S-2 steel bits.
- Meets ANSI standards for performance.
- Set consists of one of each of the following Bit Sockets:

PART NO.	DRIVE	SIZE
CBS-T80	1/4"	T8
CBS-T100	1/4"	T10
CBS-T150	1/4"	T15
CBS-T200	1/4"	T20
CBS-T250	1/4"	T25
CBS-T270	1/4"	T27
CBS-T300	1/4"	T30
CBS-T402	3/8"	T40
CBS-T452	3/8"	T45
CBS-T472	3/8"	T47
CBS-T502	3/8"	T50
CBS-T553	1/2"	T55
CBS-T603	1/2"	T60
CBS-T10H0	1/4"	T10H Tamperproof
CBS-T15H0	1/4"	T15H Tamperproof
CBS-T20H0	1/4"	T20H Tamperproof
CBS-T25H0	1/4"	T25H Tamperproof
CBS-T27H0	1/4"	T27H Tamperproof
CBS-T30H0	1/4"	T30H Tamperproof
CBS-T40H2	3/8"	T40H Tamperproof
CBS-T45H2	3/8"	T45H Tamperproof
CBS-T50H2	3/8"	T50H Tamperproof
CBS-T55H3	1/2"	T55H Tamperproof
CBS-E40	1/4"	E4 Inverted Torx®
CBS-E50	1/4"	E5 Inverted Torx®
CBS-E60	1/4"	E6 Inverted Torx®
CBS-E70	1/4"	E7 Inverted Torx®
CBS-E80	1/4"	E8 Inverted Torx®
CBS-E102	3/8"	E10 Inverted Torx®
CBS-E122	3/8"	E12 Inverted Torx®
CBS-E142	3/8"	E14 Inverted Torx®
CBS-E162	3/8"	E16 Inverted Torx®
CBS-E183	1/2"	E18 Inverted Torx®
CBS-E203	1/2"	E20 Inverted Torx®

VM-VBT840L

8 Piece Long Torx® Bit Set



- Overall Length: 4".
- Made of S2 modified tool steel for high hardness and durability.
- Set includes the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-BHC4T8	1/4" Dr. T8 Torx® Bit	VM-BHC4T25	1/4" Dr. T25 Torx® Bit
VM-BHC4T10	1/4" Dr. T10 Torx® Bit	VM-BHC6T27	3/8" Dr. T27 Torx® Bit
VM-BHC4T15	1/4" Dr. T15 Torx® Bit	VM-BHC6T30	3/8" Dr. T30 Torx® Bit
VM-BHC4T20	1/4" Dr. T20 Torx® Bit	VM-BHC6T40	3/8" Dr. T40 Torx® Bit

OW-6180

9 Piece Torx® Plus Bit Socket Set



- Less pointed than standard Torx® fasteners, which improves the mechanical advantage on higher torque applications.
- Made from superior S-2 steel to meet or exceed torque specifications.
- All bit sockets are a two-piece design.....20% stronger than one-piece style for longer life.
- Set includes one of each of the following:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
OW-6181	1/4"	TP10	OW-6186	1/4"	TP30
OW-6182	1/4"	TP15	OW-6187	3/8"	TP40
OW-6183	1/4"	TP20	OW-6188	3/8"	TP45
OW-6184	1/4"	TP25	OW-6191	3/8"	TP50
OW-6185	1/4"	TP27			

VA-80470

5 Piece Impact Quality Torx® Bit Set



- Fracture resistant tips for long life.
- Use with an impact or air gun.
- Made of industrial quality steel.
- Vinyl bit holder keeps bits handy and prevents loss.
- Set consists of the following:

PART NO.	TORX® SIZE	PART NO.	TORX® SIZE
VA-80461	TX40	VA-80464	TX50
VA-80462	TX45	VA-80465	TX55
VA-80463	TX47		

CBS-TX623S

6 Piece 3/8" and 1/2" Drive Torx® Bit Socket Set



- Set consists of one of each of the following Torx® Bit Sockets:

PART NO.	DRIVE	SIZE	PART NO.	DRIVE	SIZE
CBS-T302	3/8"	T30	CBS-T502	3/8"	T50
CBS-T402	3/8"	T40	CBS-T552	3/8"	T55
CBS-T452	3/8"	T45	CBS-T603	1/2"	T60

CBS-TX1302S

13 Piece 1/4" & 3/8" Drive Torx® Bit Socket Set



- Industrial strength S-2 steel bits.
- Meets ANSI standards for performance.
- Set consists of one of each of the following Torx® Bit Sockets:

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-T80	1/4" T8	CBS-T402	3/8" T40
CBS-T100	1/4" T10	CBS-T452	3/8" T45
CBS-T150	1/4" T15	CBS-T472	3/8" T47
CBS-T200	1/4" T20	CBS-T502	3/8" T50
CBS-T250	1/4" T25	CBS-T552	3/8" T55
CBS-T270	1/4" T27	CBS-T602	3/8" T60
CBS-T302	3/8" T30		

CBS-TXI902S

9 Piece 1/4" and 3/8" Drive Inverted Torx® Bit Socket Set



- Set consists of one of each of the following Bit Sockets:

PART NO.	DRIVE	SIZE
CBS-E40	1/4"	E4 Inverted Torx®
CBS-E50	1/4"	E5 Inverted Torx®
CBS-E60	1/4"	E6 Inverted Torx®
CBS-E70	1/4"	E7 Inverted Torx®
CBS-E82	3/8"	E8 Inverted Torx®
CBS-E102	3/8"	E10 Inverted Torx®
CBS-E122	3/8"	E12 Inverted Torx®
CBS-E142	3/8"	E14 Inverted Torx®
CBS-E162	3/8"	E16 Inverted Torx®

CBS-TXI2202S

22 Piece 1/4", 3/8", & 1/2" Drive Torx® and Inverted Torx® Bit Socket Set



- Industrial strength S-2 steel bits.
- Meets ANSI standards for performance.
- Set consists of one of each of the following Bit Sockets:

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-T80	1/4" T8	CBS-T552	3/8" T55
CBS-T100	1/4" T10	CBS-T603	1/2" T60
CBS-T150	1/4" T15	CBS-E40	1/4" E4 Inverted Torx®
CBS-T200	1/4" T20	CBS-E50	1/4" E5 Inverted Torx®
CBS-T250	1/4" T25	CBS-E60	1/4" E6 Inverted Torx®
CBS-T270	1/4" T27	CBS-E70	1/4" E7 Inverted Torx®
CBS-T302	3/8" T30	CBS-E82	3/8" E8 Inverted Torx®
CBS-T402	3/8" T40	CBS-E102	3/8" E10 Inverted Torx®
CBS-T452	3/8" T45	CBS-E122	3/8" E12 Inverted Torx®
CBS-T472	3/8" T47	CBS-E142	3/8" E14 Inverted Torx®
CBS-T502	3/8" T50	CBS-E162	3/8" E16 Inverted Torx®

VM-VBE48

5 Piece Inverted Torx® Bit Set

- Overall Length: 4".
- Designed for long reach, deep, or close quarters work.



- Set includes the following bits and chrome holders on rail.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-VBE4HC	E-4 Inverted Torx Bit	VM-VBE7HC	E-7 Inverted Torx Bit
VM-VBE5HC	E-5 Inverted Torx Bit	VM-VBE8HC	E-8 Inverted Torx Bit
VM-VBE6HC	E-6 Inverted Torx Bit		

CBS-TP52S

5 Piece 3/8" Drive Tamperproof Bit Socket Set



- Set consists of one of each of the following Tamperproof Bit Sockets:

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-T30H2	3/8" T30H	CBS-T50H2	3/8" T50H
CBS-T40H2	3/8" T40H	CBS-T55H2	3/8" T55H
CBS-T45H2	3/8" T45H		

CBS-TP1102S

11 Piece 1/4" and 3/8" Drive Tamperproof Bit Socket Set



- Industrial strength S-2 steel bits.
- Meets ANSI standards for performance.
- Set consists of one of each of the following Tamperproof Bit Sockets:

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-T8H0	1/4" T8H	CBS-T30H2	3/8" T30H
CBS-T10H0	1/4" T10H	CBS-T40H2	3/8" T40H
CBS-T15H0	1/4" T15H	CBS-T45H2	3/8" T45H
CBS-T20H0	1/4" T20H	CBS-T50H2	3/8" T50H
CBS-T25H0	1/4" T25H	CBS-T55H2	3/8" T55H
CBS-T27H0	1/4" T27H		

ZZ-TS4S

4 Piece Triple Square Bit Set, 3/8" & 1/2" Drive

- These Triple Square Insert bits can be used on Volkswagen, Opel, Porsche and other import cars.
- Set includes the following:



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-VB5206	6mm x 5/16" Bit	VM-H8716(2)	1/2" Dr. for 7/16" Hex Bits
VM-VB5208	8mm x 5/16" Bit	ST-2C(2)	3/8" Clips
VM-VB5210	10mm x 7/16" Bit	ST-3C(2)	1/2" Clips
VM-VB5212	12mm x 7/16" Bit	ST-1R	Socket Rail
VM-HS6516(2)	3/8" Dr. for 5/16" Hex Bits		

INSERT BITS

In some cases, several bits may be stamped with the same identifying mark so it is necessary to know the hex size, overall length, and tip width to determine which bit may be needed.

Hex Insert Bits



- The following can be used to replace bits in the SKA-211S and SKA-311S Sets.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
AB-1406	7/16"	3/16"	1-3/8"
AB-1407	7/16"	7/32"	1-3/8"
AB-1408	7/16"	1/4"	1-3/8"
AB-1410	7/16"	5/16"	1-3/8"
AB-1412	7/16"	3/8"	1-3/8"
AB-1414	7/16"	7/16"	1-3/8"
AB-1416	7/16"	1/2"	1-3/8"
AB-1418	7/16"	9/16"	1-3/8"
AB-1420	7/16"	5/8"	1-3/8"

- The following can be used to replace bits in the CBS-350S and CBS-D410S set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBT-H14	1/4"	1/4"	1"
CBT-H18	1/4"	1/8"	1"
CBT-H316	1/4"	3/16"	1"
CBT-H332	1/4"	3/32"	1"
CBT-H532	1/4"	5/32"	1"
CBT-H564	1/4"	5/64"	1"
CBT-H732	1/4"	7/32"	1"
CBT-H764	1/4"	7/64"	1"

- The following can be used to replace bits in the ZZ-HB206S and ZZ-DBC7S set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
MN-27265	5/16"	5/32"	1-1/8"
MN-27266	5/16"	3/16"	1-1/8"
MN-27270	5/16"	3/8"	1-1/4"
MN-35092	1/4"	7/32"	1"
MN-35387	1/4"	1/16"	1"
MN-37560	5/16"	7/32"	1-1/8"
MN-37561	5/16"	1/4"	1-1/8"
MN-37562	5/16"	5/16"	1-1/8"
MN-45164	1/4"	5/64"	1"
MN-45167	1/4"	1/8"	1"
MN-45168	1/4"	9/64"	1"

- The following can be used to replace bits in the VM-VBH1038A set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
VM-VB5603	1/4"	3/32"	1-5/16"
VM-VB5603A	1/4"	7/64"	1-5/16"
VM-VB5604	1/4"	1/8"	1-5/16"
VM-VB5604A	1/4"	9/64"	1-5/16"
VM-VB5605	1/4"	5/32"	1-5/16"
VM-VB5606	1/4"	3/16"	1-5/16"
VM-VB5607	1/4"	7/32"	1-5/16"
VM-VB5608	1/4"	1/4"	1-5/16"
VM-VB5610	5/16"	5/16"	1-7/16"
VM-VB5612	3/8"	3/8"	1-7/16"

Hex Bit Sockets

- The following can be used to replace bit in the CBS-1402S and CBS-2802S sets.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBS-142	3/8"	1/4"	2"
CBS-180	1/4"	1/8"	2"
CBS-382	3/8"	3/8"	2"
CBS-3160	1/4"	3/16"	2"
CBS-5162	3/8"	5/16"	2"
CBS-5320	1/4"	5/32"	2"
CBS-7322	3/8"	7/32"	2"

Extra Long Hex Bit Sockets

- The following can be used to replace bits in the CBS-702SXL, CBS-1402SXL and CBS-2802S sets.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBS-142XL	3/8"	1/4"	4"
CBS-180XL	1/4"	1/8"	4"
CBS-382XL	3/8"	3/8"	4"
CBS-3160XL	1/4"	3/16"	4"
CBS-5162XL	3/8"	5/16"	4"
CBS-5320XL	1/4"	5/32"	4"
CBS-7322XL	3/8"	7/32"	4"

Extra Long Hex Bits

- The following can be used to replace bits in the ZZ-6XLHBS set.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
VM-VB5605XL	1/4"	5/32"	6"
VM-VB5606XL	1/4"	3/16"	6"
VM-VB5607XL	1/4"	7/32"	6"
VM-VB5608XL	1/4"	1/4"	6"
VM-VB5610XL	5/16"	5/16"	6"
VM-VB5612XL	3/8"	3/8"	6"

Metric Hex Bits



- The following can be used to replace bits in the SKA-309RMS set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
AB-1405MM	7/16"	5MM	34.92
AB-1406MM	7/16"	6MM	34.92
AB-1408MM	7/16"	8MM	34.92
AB-1410MM	7/16"	10MM	34.92
AB-1412MM	7/16"	12MM	34.92
AB-1414MM	7/16"	14MM	34.92
AB-1417MM	7/16"	17MM	34.92
AB-1419MM	7/16"	19MM	34.92

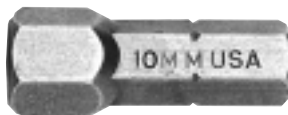


WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

BITS, BIT SOCKETS, HEX AND BALL HEX BLADES

Metric Hex Bits



- The following can be used to replace bits in the ZZ-207MS and ZZ-DBC7S set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
MN-36544	5/16"	3MM	1-1/8"
MN-36545	5/16"	4MM	1-1/8"
MN-36546	5/16"	5MM	1-1/8"
MN-36547	5/16"	6MM	1-1/8"
MN-36548	5/16"	8MM	1-1/8"
MN-36549	5/16"	10MM	1-1/8"
MN-44997	5/16"	7MM	1-5/16"

- The following can be used to replace bits in the VM-VBH210M set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
VM-VB56M2	1/4"	2MM	1-3/8"
VM-VB56M2A	1/4"	2.5MM	1-3/8"
VM-VB56M3	1/4"	3MM	1-3/8"
VM-VB56M4	1/4"	4MM	1-3/8"
VM-VB56M5	1/4"	5MM	1-3/8"
VM-VB56M6	1/4"	6MM	1-3/8"
VM-VB56M7	5/16"	7MM	1-7/16"
VM-VB56M8	5/16"	8MM	1-7/16"
VM-VB56M9	7/16"	9MM	1-7/16"
VM-VB56M10	7/16"	10MM	1-7/16"

Metric Hex Bit Sockets

- The following can be used to replace bit in the CBS-1402S and CBS-2802S sets.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBS-M40	1/4"	4MM	2"
CBS-M50	1/4"	5MM	2"
CBS-M60	1/4"	6MM	2"
CBS-M72	3/8"	7MM	2"
CBS-M82	3/8"	8MM	2"
CBS-M92	3/8"	9MM	2"
CBS-M102	3/8"	10MM	2"

Extra Long Metric Hex Bit Sockets



- The following can be used to replace bits in the CBS-M702SXL, CBS-1402SXL and CBS-2802S sets.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBS-M40XL	1/4"	4MM	4"
CBS-M50XL	1/4"	5MM	4"
CBS-M60XL	1/4"	6MM	4"
CBS-M72XL	3/8"	7MM	4"
CBS-M82XL	3/8"	8MM	4"
CBS-M92XL	3/8"	9MM	4"
CBS-M102XL	3/8"	10MM	4"

INSERT BITS

In some cases, several bits may be stamped with the same identifying mark so it is necessary to know the hex size, overall length, and tip width to determine which bit may be needed.

Extra Long Metric Hex Bits

- The following can be used to replace bits in the ZZ-6XLMHBS set.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
VM-VB56M4XL	1/4"	4MM	7"
VM-VB56M5XL	1/4"	5MM	7"
VM-VB56M6XL	1/4"	6MM	7"
VM-VB56M7XL	5/16"	7MM	7"
VM-VB56M8XL	5/16"	8MM	7"
VM-VB56M10XL	7/16"	10MM	7"

Hex and Ball Hex Blades



- The following can be used to replace blades in the VM-BH100 set:

PART NO.	DESCRIPTION
VM-BH104	1/8" Hex/Ball Hex Blade
VM-BH104A	9/64" Hex/Ball Hex Blade
VM-BH105	5/32" Hex/Ball Hex Blade
VM-BH106	3/16" Hex/Ball Hex Blade
VM-BH107	7/32" Hex/Ball Hex Blade
VM-BH108	1/4" Hex/Ball Hex Blade
VM-BH110	5/16" Ball Hex Blade
VM-BH110H	5/16" Hex Blade

Metric Hex and Ball Hex Blades



- The following can be used to replace blades in the VM-BHM100 set:

PART NO.	DESCRIPTION
VM-BHM2	2MM Hex/Ball Hex Blade
VM-BHM2.5	2.5MM Hex/Ball Hex Blade
VM-BHM3	3MM Hex/Ball Hex Blade
VM-BHM4	4MM Hex/Ball Hex Blade
VM-BHM5	5MM Hex/Ball Hex Blade
VM-BHM6	6MM Hex/Ball Hex Blade
VM-BHM8	8MM Ball Hex Blade
VM-BHM8H	8MM Hex Blade

Ball Hex Bit Sockets

- The following can be used to replace blades in the CBS-B702S set:



PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-B180	1/4" 1/8"	CBS-B142	3/8" 1/4"
CBS-B5320	1/4" 5/32"	CBS-B5162	3/8" 5/16"
CBS-B3160	1/4" 3/16"	CBS-B382	3/8" 3/8"
CBS-B7322	3/8" 7/32"		

Metric Ball Hex Bit Sockets

- The following can be used to replace blades in the CBS-MB702S set:



PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-MB40	1/4" 4MM	CBS-MB82	3/8" 8MM
CBS-MB50	1/4" 5MM	CBS-MB92	3/8" 9MM
CBS-MB60	1/4" 6MM	CBS-MB102	3/8" 10MM
CBS-MB72	3/8" 7MM		

Extra Long Metric Ball Hex Bit Sockets



- The following can be used to replace bits in the CBS-MB702SXL set.

PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBS-MB40XL	1/4"	4MM	4"
CBS-MB50XL	1/4"	5MM	4"
CBS-MB60XL	1/4"	6MM	4"
CBS-MB72XL	3/8"	7MM	4"
CBS-MB82XL	3/8"	8MM	4"
CBS-MB92XL	3/8"	9MM	4"
CBS-MB102XL	3/8"	10MM	4"

Torx® Drivers

- One-piece units made from S-2 alloy steel with a black oxide finish.
- Can be used for to replace bits in the VM-VBD1060 set.



PART NO.	TORX® DRIVE SIZE	PART NO.	TORX® DRIVE SIZE
VM-VBD10	TX10 1/4"	VM-VBD40	TX40 3/8"
VM-VBD15	TX15 1/4"	VM-VBD45	TX45 3/8"
VM-VBD20	TX20 1/4"	VM-VBD47	TX47 3/8"
VM-VBD25	TX25 1/4"	VM-VBD50	TX50 3/8"
VM-VBD27	TX27 1/4"	VM-VBD55	TX55 3/8"
VM-VBD30	TX30 1/4"	VM-VBD60	TX60 1/2"

Long Torx® Bits



- The following can be used for to replace bits in the VM-VBT840L set.

PART NO.	TORX® DRIVE SIZE	PART NO.	TORX® DRIVE SIZE
VM-BHC4T8	TX8 1/4"	VM-BHC4T25	TX25 1/4"
VM-BHC4T10	TX10 1/4"	VM-BHC6T27	TX27 3/8"
VM-BHC4T15	TX15 1/4"	VM-BHC6T30	TX30 3/8"
VM-BHC4T20	TX20 1/4"	VM-BHC6T40	TX40 3/8"

Torx® Bits

- Industrial strength S-2 steel bits.
- Meets ANSI standards for performance.
- Can be used to replace bits in the CBS-MTX34S, CBS-TX623S, CBS-TX1302S and CBS-TX12202S sets.



PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-T80	1/4" T8	CBS-T402	3/8" T40
CBS-T100	1/4" T10	CBS-T452	3/8" T45
CBS-T150	1/4" T15	CBS-T472	3/8" T47
CBS-T200	1/4" T20	CBS-T502	3/8" T50
CBS-T250	1/4" T25	CBS-T552	3/8" T55
CBS-T270	1/4" T27	CBS-T553	1/2" T55
CBS-T300	1/4" T30	CBS-T602	3/8" T60
CBS-T302	3/8" T30	CBS-T603	1/2" T60

Triple Square Bits

- The following can be used to replace bits in the ZZ-TS4S set.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-VB5206	6MM x 5/16" Bit	VM-VB5210	10MM x 7/16" Bit
VM-VB5208	8MM x 5/16" Bit	VM-VB5212	12MM x 7/16" Bit

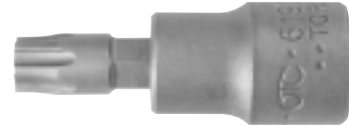
Tamperproof Torx® Bit Sockets



- Industrial strength S-2 steel bits.
- Meets ANSI standards for performance.
- Can be used to replace bits in the CBS-MTX34S, CBS-TP52S and CBS-TP1102S sets.

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-T8H0	1/4" T8H	CBS-T30H2	3/8" T30H
CBS-T10H0	1/4" T10H	CBS-T40H2	3/8" T40H
CBS-T15H0	1/4" T15H	CBS-T45H2	3/8" T45H
CBS-T20H0	1/4" T20H	CBS-T47H2	3/8" T47H
CBS-T25H0	1/4" T25H	CBS-T50H2	3/8" T50H
CBS-T27H0	1/4" T27H	CBS-T55H2	3/8" T55H
CBS-T30H0	1/4" T30H	CBS-T55H3	1/2" T55H

Torx® Plus Bit Sockets



- Can be used to replace bits in the OW-6180 set:

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
OW-6181	1/4" TP10	OW-6186	1/4" TP30
OW-6182	1/4" TP15	OW-6187	3/8" TP40
OW-6183	1/4" TP20	OW-6188	3/8" TP45
OW-6184	1/4" TP25	OW-6191	3/8" TP50
OW-6185	1/4" TP27		

Impact Quality Torx® Bits



- Fracture resistant tips for long life.
- For use with an impact or air gun.
- Manufactured from industrial quality steel.
- Can be used to replace bits in the VA-80470 set.

PART NO.	TORX® SIZE	PART NO.	TORX® SIZE
VA-80461	TX-40	VA-80464	TX-50
VA-80462	TX-45	VA-80465	TX-55
VA-80463	TX-47		

Inverted Torx® Sockets



- Meets ANSI standards for performance.
- Can be used to replace bits in the CBS-MTX34S, CBS-TX1902S and CBX-TX12202S sets.

PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBS-E40	1/4" E4 Inverted Torx®	CBS-E102	3/8" E10 Inverted Torx®
CBS-E50	1/4" E5 Inverted Torx®	CBS-E122	3/8" E12 Inverted Torx®
CBS-E60	1/4" E6 Inverted Torx®	CBS-E142	3/8" E14 Inverted Torx®
CBS-E70	1/4" E7 Inverted Torx®	CBS-E162	3/8" E16 Inverted Torx®
CBS-E80	1/4" E8 Inverted Torx®	CBS-E183	1/2" E18 Inverted Torx®
CBS-E82	3/8" E8 Inverted Torx®	CBS-E203	1/2" E20 Inverted Torx®

Inverted Torx® Bits



- Can be used to replace bits in the VM-VBE48 set.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-VBE4HC	E-4 Inverted Torx Bit	VM-VBE7HC	E-7 Inverted Torx Bit
VM-VBE5HC	E-5 Inverted Torx Bit	VM-VBE8HC	E-8 Inverted Torx Bit
VM-VBE6HC	E-6 Inverted Torx Bit		

Slotted Insert Bits



- The following can be used to replace bits in the CBS-350S and CBS-D410S sets.

PART NUMBER	HEX SHANK	BLADE WIDTH	BLADE THICKNESS	POINT SIZE	LENGTH
CBT-14	1/4"	1/4"	.040	6-8	1"
CBT-14L	1/4"	1/4"	.040	6-8	2"
CBT-18	1/4"	1/8"	.026	1-2	1"
CBT-316	1/4"	3/16"	.034	4-5	1"
CBT-316L	1/4"	3/16"	.034	4-5	2"
CBT-516	1/4"	5/16"	.040	12-14	1"
CBT-532	1/4"	5/32"	.032	3-4	1"
CBT-732	1/4"	7/32"	.036	5-6	1"
CBT-932	1/4"	9/32"	.042	6-8	1"

- The following can be used to replace bits in the ZZ-IMP210S set.

PART NUMBER	HEX SHANK	BLADE WIDTH	BLADE THICKNESS	POINT SIZE	LENGTH
MN-27190	5/16"	3/16"	.034	4-5	1-1/2"
MN-27191	5/16"	1/4"	.040	6-8	1-1/2"
MN-27192	5/16"	9/32"	.042	8-10	1-1/2"
MN-27193	5/16"	9/32"	.046	10-12	1-1/2"
MN-27194	5/16"	5/16"	.050	12-14	1-1/2"
MN-27195	5/16"	23/64"	.055	14-16	1-1/2"
MN-27196	5/16"	1/2"	.064	16-18	1-3/4"
MN-45159	1/4"	7/64"	.024	0-1	1"
MN-45397	1/4"	3/16"	.034	4-5	1"
MN-45465	1/4"	1/8"	.026	1-2	1"

Phillips® Insert Bits

- The following can be used to replace bits in the CBS-350S, CBS-D410S, and ZZ-IMP210S sets.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBT-PH0	1/4"	No. 0	1"
CBT-PH1	1/4"	No. 1	1"
CBT-PH1L	1/4"	No. 1	2"
CBT-PH2	1/4"	No. 2	1"
CBT-PH2L	1/4"	No. 2	2"
CBT-PH3	1/4"	No. 3	1"
MN-35352	5/16"	No. 1	1-1/4"
MN-35353	5/16"	No. 2	1-1/4"
MN-35354	5/16"	No. 4	1-1/4"
MN-45189	1/4"	No. 1	1"
MN-45190	1/4"	No. 2	1"
MN-45191	1/4"	No. 3	1"
MN-48280	5/16"	No. 3	1-1/4"

Reduced Diameter Phillips® Bit



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
MN-44963	1/4"	No. 2R	1"

Pozidriv® Insert Bits

- The following can be used to replace bits in the CBS-350S and CBS-D410S sets.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBT-PZ0	1/4"	No. 0	1"
CBT-PZ1	1/4"	No. 1	1"
CBT-PZ2	1/4"	No. 2	1"
CBT-PZ3	1/4"	No. 3	1"

Insert Bits for Square Recess Screws

- The following can be used to replace bits in the CBS-350S and CBS-D410S sets.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBT-S0	1/4"	S0	1"
CBT-S1	1/4"	S1	1"
CBT-S2	1/4"	S2	1"
MN-45197	1/4"	No. 3	1"

Tamperproof Bits

- The following can be used to replace bits in the CBS-350S and CBS-D410S sets.



PART NO.	DRIVE SIZE	PART NO.	DRIVE SIZE
CBT-T10H	1/4" T10H	CBT-T27H	1/4" T27H
CBT-T15H	1/4" T15H	CBT-T30H	1/4" T30H
CBT-T20H	1/4" T20H	CBT-T40H	1/4" T40H
CBT-T25H	1/4" T25H		

Torx® Insert Bits

- The following can be used to replace bits in the ZZ-DBS7S set.



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
CBT-T10	1/4"	T10	1"
CBT-T15	1/4"	T15	1"
CBT-T20	1/4"	T20	1"
CBT-T25	1/4"	T25	1"
CBT-T30	1/4"	T30	1"
CBT-T40	1/4"	T40	1"
MN-35369	1/4"	T15	1"
MN-35370	1/4"	T20	1"
MN-35371	1/4"	T25	1"
MN-35373	1/4"	T30	1"
MN-35375	5/16"	T45	1-1/4"
MN-35376	5/16"	T50	1-1/4"
MN-35377	5/16"	T55	1-1/4"
MN-37890	5/16"	Special T47	1-1/4"
MN-39879	1/4"	T8	1"
MN-42898	5/16"	T40	1-1/4"
MN-45147	1/4"	T10	1"
MN-45468	1/4"	T27	1"
VM-VB5114	1/2"	T60	1-1/2"

Torx® Tamper Resistant Insert Bits



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
VM-VT5101	5/16"	T45	1-1/4"
VM-VT5111	5/16"	T50	1-1/4"
VM-VT5113	7/16"	T55	1-1/2"

Clutch Head Insert Bits



PART NUMBER	HEX SHANK	POINT SIZE	LENGTH
MN-25083	1/4"	3/16"	1"
MN-27081	1/4"	1/8"	1"
MN-27084	1/4"	1/4"	1"
MN-45469	1/4"	5/32"	1"

Bit Holder Sockets — Retaining Ring Type



PART NUMBER	DRIVE SIZE	HOLDS HEX BIT SIZE	OVERALL LENGTH	WALL TYPE
VM-H414	1/4" Sq.	1/4"	1"	Straight
VM-H614	3/8" Sq.	1/4"	1-1/4"	Straight
VM-H638	3/8" Sq.	3/8"	1-1/4"	Straight
VM-H6516	3/8" Sq.	5/16"	1-1/4"	Straight
VM-H6716	3/8" Sq.	7/16"	1-1/2"	Straight
VM-H812	1/2" Sq.	1/2"	1-3/4"	Straight
VM-H8716	1/2" Sq.	7/16"	1-1/2"	Straight
VM-HS614	3/8" Sq.	1/4"	1-1/4"	Shoulder
VM-HS6516	3/8" Sq.	5/16"	1-1/4"	Shoulder

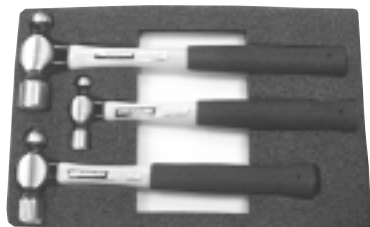
Bit Holder Sockets — Set Screw Type



PART NO.	DRIVE	OPENING	LENGTH
PS-2210	3/8" Dr.	5/16" Hex Opening	1"
PS-2214	3/8" Dr.	7/16" Hex Opening	1-9/32"
PS-3214A	1/2" Dr.	7/16" Hex Opening	1-1/2"

ZZ-VB3FSS

3 Piece Fiberglass Handle Ball Pein Hammer Set

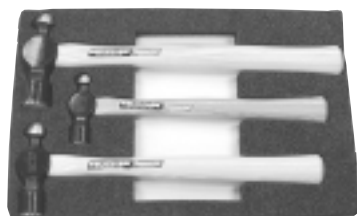


- Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VB-FS016	16 oz. Hammer	VB-FS308	8 oz. Hammer
VB-FS224	24 oz. Hammer		

ZZ-VB3TCS

3 Piece Ball Pein Hammer Set



- Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VB-TC016	16 oz. Hammer	VB-TC308	8 oz. Hammer
VB-TC224	24 oz. Hammer		

Fiberglass Handle Ball Pein Hammers



- Have highly polished striking heads, cheeks and pein.
- Hollow-core fiberglass handles provide better balance and shock absorption than solid fiberglass handles.
- Steel wedged and epoxy sealed adze eye assembly; slip resistant grip.

PART NUMBER	HEAD WEIGHT	LENGTH	WEIGHT
VB-FS016	16 oz.	13"	1-1/2 lbs.
VB-FS224	24 oz.	14-1/2"	2-1/8 lbs.
VB-FS308	8 oz.	12-1/2"	1 lb.

VB-59807 Replacement Handle/VB-FS016, VB-FS308
VB-59812 Replacement Handle/VB-FS224

Ball Pein Hammers



- Drop forged tempered head.
- Polished face, bevel, and pein.
- Rust resistant black finish on smooth ground sides.
- Compression wedged hickory handle.

PART NO.	HEAD	LENGTH	REPL. HANDLE
VB-TC016	16 oz.	13-3/4"	VB-621-62
VB-TC120	20 oz.	15"	VB-622-42
VB-TC224	24 oz.	15-1/4"	VB-622-42
VB-TC308	8 oz.	11-3/4"	VB-620-82
VB-TC432	32 oz.	15-3/4"	VB-624-02
VB-TC504	4 oz.	10-1/4"	VB-620-62
VB-TC640	40 oz.	16"	VB-624-02
VB-TC848	48 oz.	16"	VB-624-02
VB-TC2012	12 oz.	12"	VB-621-22

Compo-Cast® Ball Peen Hammers



- Dead blow steel face ball peen hammer heads are tempered alloy steel with crowned faces for more accuracy – No bounce back.
- Steel reinforced handles provide added strength and safety, resist breaking on overstrike.
- Dead blow function uses steel shot.

PART NO.	WEIGHT	FACE DIAM.	HEAD LENGTH	OVERALL LENGTH
CH-54-508	8 oz.	3/4"	3-9/16"	11"
CH-54-512	12 oz.	7/8"	3-13/16"	12"
CH-54-516	16 oz.	1"	4-1/8"	12-5/8"
CH-54-524	24 oz.	1-3/16"	4-7/16"	12-7/8"
CH-54-532	32 oz.	1-9/32"	4-3/4"	13-5/8"

HAMMERS

Dead Blow Hammers



- High quality custom formulated hot cast polyurethane for long life and elasticity. • Enables hammer face to be self-healing and dent resistant. • Impervious to oil and most chemicals. • Standard head design is ideal for industrial, automotive and construction operations. • Molded in Trucothane™ with shot filled dead blow heads. • Exclusive textured, non-slip, comfort contoured handle.

PART NO.	WEIGHT	FACE DIA.	HEAD LENGTH	OVERALL LENGTH
CTH-TC-0	13 oz.	1-1/4"	3-1/8"	10-1/8"
CTH-TC-1	21 oz.	1-3/4"	3-3/4"	11-1/4"
CTH-TC-2	26 oz.	2"	4-1/8"	12-3/4"
CTH-TC-3	45 oz.	2-1/4"	4-5/8"	14-3/8"

Slimline Dead Blow Hammers



- High quality custom formulated hot cast polyurethane for long life and elasticity. • Enables hammer face to be self-healing and dent resistant. • Impervious to oil and most chemicals. • Slimline heads with unique profile for all types of assembly and repair operations. • Molded in Trucothane™ with shot filled dead blow heads. • Exclusive textured, non-slip, comfort contoured handle.

PART NO.	WEIGHT	FACE DIA.	HEAD LENGTH	OVERALL LENGTH
CTH-TC-S0	8 oz.	7/8"	2-7/8"	9-3/8"
CTH-TC-S1	18 oz.	1-1/4"	4-3/16"	10-5/8"
CTH-TC-S2	22 oz.	1-1/2"	4-1/4"	12-1/8"

CTH-TC-S4

Dead Blow Piston Hammer



- High quality custom formulated hot cast polyurethane for long life and elasticity. • Enables hammer face to be self-healing and dent resistant. • Impervious to oil and most chemicals. • Slimline heads with unique profile for all types of assembly and repair operations. • Molded in Trucothane™ with shot filled dead blow heads. • Exclusive textured, non-slip, comfort contoured handle. • Weight: 32 oz. • Face diameter: 1-3/4". • Head Length: 8-1/2". • Overall Length: 12-3/4".

CTH-TC-7

Dead Blow Sledge Hammer



- High quality custom formulated hot cast polyurethane for long life and elasticity. • Enables hammer face to be self-healing and dent resistant. • Impervious to oil and most chemicals. • Suited for heavy duty construction projects, off road machinery and concrete work. • Molded in Trucothane™ with shot filled dead blow heads. • Custom comfort handle and stand up head. • Weight: 5-1/2 lbs. • Face diameter: 2-3/4". • Head Length: 7". • Overall Length: 20".



WARNING!

Wear safety goggles. Do not use chipped, mushroomed or cracked hammers.

VB-NT175

Nylon Face Hammer



- Supplied with two easily-replaceable threaded, one-piece molded hard white nylon faces with no metal plugs or fasteners to mar or scratch work surfaces. • Shoulder absorbs force of side blows, protecting threads. • Chrome plated, zinc alloy heads are serrated to keep faces tight. • Top quality hardwood handles. • Face diameter: 1-3/4". • Length: 12". • Weight: 2 lbs.

VB-175HF Replacement Face

VB-59680 Replacement Handle

Blacksmith Hammers



- Drop Forged. • Tempered face and cross pein. • Rust resistant black finish on smooth ground sides. • Large face and wide bevel minimize chipping. • Flame treated hickory handle, "Sure-Lock" wedged in tapered eye.

PART NO.	HEAD	LENGTH	REPL. HANDLE
VB-S32	32 oz.	14-1/2"	VB-622-42
VB-S40	40 oz.	15-1/2"	VB-624-02
VB-S48	48 oz.	16"	VB-624-02

Brass Hammers



- Prevents damage to parts and eliminates hazardous sparks. • Cast brass head. • Polished and lacquered hickory handle.

PART NO.	HEAD	LENGTH	WEIGHT
SH-77760	3"	11-1/2"	1 lb.
SH-77226	3-1/2"	11-1/2"	2 lbs.
SH-77761	4-1/4"	14-3/4"	3 lbs.

Double Face Engineer's Hammers



- Drop Forged. • Polished striking faces with generous bevels. • Rust resistant black finish on smooth ground sides. • Flame treated hickory handle, "Sure-Lock" wedged in tapered eye.

PART NO.	HEAD	LENGTH	REPL. HANDLE
VB-SDF40	40 oz.	15-1/2"	VB-624-02
VB-SDF48	48 oz.	16"	VB-624-02

Double Face Engineer's Hammers with Fiberglass Handles



- Fiberglass handles are fitted with high-impact rubber over-strike shields in the critical neck area. • Patented hollow core handle and slip-resistant, cushioned PVC grip absorb shock.

PART NO.	HEAD	LENGTH
VB-SDF48F	3 lbs.	15-1/4"
VB-SDF464F	4 lbs.	15-1/2"

Black Rubber Mallets



- Use for pounding small fender dents and other types of work to avoid marring surfaces.
- Smooth black rubber head won't turn off.
- Lacquered hickory handles.

PART NO.	FACE	HEAD	HANDLE	WEIGHT
SH-77286	1-9/16"	2-7/8"	12"	12 oz.
SH-77287	1-13/16"	3-1/2"	12"	16 oz.
SH-77288	2-1/8"	4"	14"	24 oz.
SH-77289	2-1/2"	4-1/2"	14"	32 oz.

VB-HD3

3 lb. Hand Drilling Hammer



- 10-1/4" long.
- Great for striking star drills, cold chisels, brick chisels, and punches.
- Broad, polished striking faces with generous bevels.
- Rust resistant black finish on smooth ground sides.
- Select, flame treated hickory handle.

VB-630-32 Replacement Handle

VB-SS4

4 lb. Double Face Sledge Hammer



- 16" long.
- Polished faces with generous bevels.
- Rust resistant black finish on sides.
- Flame treated hickory handle.

VB-634-02 Replacement Handle

OF-7003

Welder's Chipping Hammer

- Heat treated alloy steel assures long life.
- Pointed pick end.
- Comfortable plastic handle.
- Chisel end: 3/4".
- Length: 11-1/4"
- Weight: 17 oz.



Hammer Handles



- Selected second-growth hickory.
- Complete with wood and metal wedge.

PART NO.	LENGTH	PART NO.	LENGTH
SQ-9211	11"	SQ-42316	16"
SQ-10612	12"	SQ-77614	14"
SQ-11114	14"	SQ-77616-1/2	16-1/2"
SQ-20416	16"	SQ-77618	18"
SQ-42214	14"		



WARNING!

Wear safety goggles. Do not use chipped, mushroomed or cracked hammers.

Vaughn & Bushnell Hammer Handle

Cross Reference Chart (not illustrated)

PART NO.	USED ON:	PART NO.	USED ON:
VB-59680	VB-NT175	VB-59812	VB-FS224
VB-59807	VB-FS016, VB-FS308		
• The following are supreme grade replacement handles made of top-of-the-line hickory with weather resistant clear lacquer finish. Density = 48 lbs. per cubic foot or more.			
PART NO.	USED ON:	PART NO.	USED ON:
VB-620-62	VB-TC504	VB-624-02	VB-S40, VB-S48,
VB-620-82	VB-TC308		VB-SDF40, VB-SDF48,
VB-621-22	VB-TC2012		VB-TC432, VB-TC640
VB-621-62	VB-TC016		VB-TC848
VB-622-42	VB-S32, VB-TC120,	VB-630-32	VB-HD3
	VB-TC224	VB-634-02	VB-SS4

SQ-6830

Sledge Hammer Handle



- Length: 30".
- For 6 to 8 lb. sledge hammers.
- Selected second-growth hickory.
- Complete with wood and metal wedge.

RB-GP11

11 Piece Gasket Cutter Set



- Designed to cut holes and internal radii in gaskets and other soft material such as rubber, lead foil, linoleum, felt fiber.
- Set contains one 5-3/8" long driving mandrel and ten punches sized from 1/4" to 1".
- Packaged in an attractive molded plastic storage box.
- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
RB-741	1/4" Hollow Punch	RB-747	5/8" Hollow Punch
RB-742	5/16" Hollow Punch	RB-748	3/4" Hollow Punch
RB-743	3/8" Hollow Punch	RB-749	7/8" Hollow Punch
RB-744	7/16" Hollow Punch	RB-750	1" Hollow Punch
RB-745	1/2" Hollow Punch	RB-740-0002	5-3/8" Mandrel
RB-746	9/16" Hollow Punch		

Steel Stamp Sets



- 3/16" figures.
- Has thumb groove to get positive grip and to make your mark with no mistake.
- Fine quality steel, special heat treatment for hardness.
- Sharp characters in gothic style.
- Crown hammer end.
- Packed in sturdy wooden box with lid.

PART NO.	DESCRIPTION
YO-MMFS36	9 pc. figure stamps set, 0-8, 6 used as a 9
YO-MMLS36	27 pc. letter stamps set
YO-MMFS36-1	Individual figures-0 to 8
YO-MMLS36-1	Individual letters-A to Z, plus a period (.)

DE-290

Engraver



- Designed for metal, plastic, glass, ceramics, wood, steel and leather. • Personalize valuable tools. • 7,200 strokes per minute, 115 volt motor and carbide point.

DE-9924 Carbide Point

Scratch Awls



- Plastic handle for comfortable grip. • For punching, marking and lining-up work. • Length: 9-5/16".

PART NO.	HANDLE COLOR	PART NO.	HANDLE COLOR
SCA-805	Blue	SCA-805NO	Neon Orange

SH-77266

Deluxe Scratch Awl



- For scribing, punching and aligning. • Hot forged tool steel shaft extends through hardwood handle. • Length: 6-1/2". • Blade Length: 3-1/2". • Blade Diameter: 1/4".

CE-6542

Scriber



- One end sharp and tempered. • Hooked end unhardened for removing "O" rings, seals, gaskets. • 7" long.

UL-1810

Double Pointed Scriber



- Straight and 90° angle points for marking in awkward places. • Heat treated, polished, high carbon needle steel points. • Knurled aluminum handle. • Length: 9-1/4".

UL-H4W-A Replacement Straight Tip

UL-H4W-B Replacement 90° Tip

UL-1820

Utility Packing Hook



- Magnetic pick-up in handle. • Handy steel hook removes springs, wadding, washers, "O" rings and pries stuck gaskets loose. • Strong steel shaft and hook, knurled aluminum handle. • Powerful magnet on end retrieves dropped metal items. • Length: 7".

UL-1830

Pocket Scriber with Magnetic Pick-Up



- Sharp tungsten carbide retractable tip cuts into hard surfaces. • Leaves clear mark on metal, glass, plastics and tools. • Knurled handle, handy pocket clip. • Length: 5-7/16".

CMP-4MPBST

4 Piece Mini Pick Set, Blue

CMP-4MPNOST

4 Piece Mini Pick Set, Orange



Sets consist of the following in a plastic tray:

PART NO. Blue Handles	PART NO. Orange Handles	DESCRIPTION
CMP-PC45B	CMP-PC45NO	45° Pick
CMP-PC90B	CMP-PC90NO	90° Pick
CMP-PH1B	CMP-PH1NO	Hook Pick
CMP-PS1B	CMP-PS1NO	Straight Pick

UL-CHP4-L

4 Piece Hook and Pick Set



- Ideal for removing small fuses, "O" rings, adjusting, positioning, retrieving small parts, and removing transmission seals and clips. • Each pick is 9-3/4" long, allowing the user to work in awkward, hard to reach areas. • Contains one of each of the following: 90° pick, hook pick, complex pick, and straight pick. • Packaged in a sturdy vinyl pouch.

UL-CHP4LA Hook Pick

UL-CHP4LB 90° Pick

UL-CHP4LC Straight Pick

UL-CHP4LD Complex Pick

UL-H4W

4 Piece Hook and Pick Set



- Anodized, hex-shaped aluminum handle and magnetic end. • Separates wires, removes small fuses, "O" rings, retrieves washers and loose parts. • Handy screw-in hook tip, straight tip, "O" ring 90° tip, and combination tip. • Comes in compact zip-lock vinyl pouch.

UL-H4W-A Repl. Straight Tip

UL-H4W-B Repl. 90° Tip

UL-H4W-C Repl. Hook Tip

UL-H4W-D Repl. Combination Tip

UL-SW-10

Combination Reversible Pick and Hook



- Swivel out end needed, other tucks away safely in lightweight aluminum handle. • Length: 7-7/8".

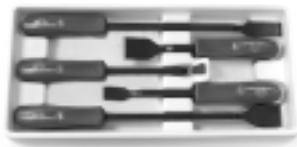


WARNING!

Always use the right tool for the job.
Always use tools correctly.

CS-5ST

5 Piece Carbon Scraper Set, Blue Handles



- Set consists of one (1) each of the following in a plastic tray. Carbon Scrapers are also available individually. Order by individual part number as listed below.

CAUTION: Plastic handles are not insulators.

PART NO. (Blue)	PART NO. (Neon Orange)	BLADE WIDTH	BLADE LENGTH	BLADE ANGLE	OVERALL LENGTH
CS-5	CS-5NO	1"	3-1/8"	10°	7"
CS-7A	CS-7ANO	5/8"	4"	12°	7-7/8"
CS-8A	CS-8ANO	9/16"	4-3/8"	45°	8-1/4"
CS-10	CS-10NO	1"	7-3/4"	10°	11-5/8"
CS-12S	CS-12SNO	3/4"	8-1/8"	Straight	12"

EC-MS3000

3 Piece Scraper Set

- Includes a compact scraper, standard scraper, long scraper, and five single edge blades in a plastic blow molded case.



EC-MS40020PACK

Mini Scrapers (20)

- Jar of twenty **EC-MS400** Mini Scrapers. • Accommodates standard, single edge razor blades (steel or plastic). • Quick and easy blade change. • Angled head ensures maximum leverage. • Remove stickers, molding, paint, decals, etc.



EC-MS400

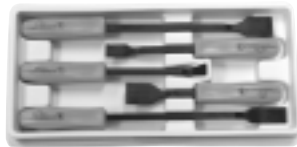
4" Mini Scraper

- Accommodates standard, single edge razor blades (steel or plastic). • Quick and easy blade change. • Angled head ensures maximum leverage. • Remove stickers, molding, paint, decals, etc.



CS-5NOST

5 Piece Carbon Scraper Set, Orange Handles



TE-87965

Extra Long Sticker Scraper



- Access steep, sloping windshields and other hard-to-reach places, like corners and curved surfaces. • Comes with five standard steel razor blades and one plastic blade for laminated windows and plastic bumpers. • Blade in holder can be reversed for storage; others store in handle. • Heavy duty construction. • 16" overall length.

HR-52600

Scraper Combination



- 7" reach covers all scraping jobs from windows to paint, including long sloping windshields. • Storage handle contains (1) plastic and (2) single edged razor blades. • "Scrapermate" folding scraper pivots to three locking positions and folds 180° into handle for storage.

HR-52250

Razor-Mate™ Mini-Scraper 50-Count Merchandiser

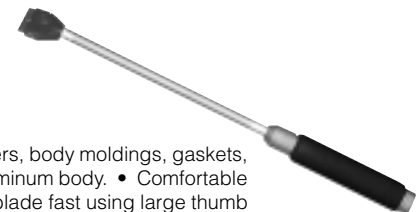
- Versatile pocket-sized mini-scrapers in assorted colors. • Scrape stickers, labels, paint, etc. • Great for detail and body work. • Features stainless steel reversible blade, blade locks in place with thumbscrew.



EC-MS1900

19" Monster Scraper

- Ideal for inspection stickers, body moldings, gaskets, and decals. • Rugged aluminum body. • Comfortable polyfoam grip. • Change blade fast using large thumb screw design; stores up to 15 blades. • Angled head insures maximum scraping power.



EC-MS60010PK

6" Monster Scrapers

- Remove windshield stickers, body molding and decals; scrape away old gasket material. • Accommodates standard single edge razor blades, steel or plastic. • Quick, easy blade change. • Angled head insures maximum leverage. • Neon orange grip. • Pack of 10.



VM-SS500

5 Way Scraper Tool

- Scraping (pointed) side is used for scraping in tight areas. • Half-rounded side can be used for scraping paint rollers when cleaning. • Hole is used to pull small nails. • Ergonomic two component handle. • Stainless steel, polished and heat-treated blade.



VM-SS7000

3 Piece Scraper Set

- Stainless steel, heat-treated, stiff blades; highly polished finish.
- Ergonomic handles.
- Stainless steel handle bolster.
- Includes one of each of the following in a black plastic tray with lid:



VM-SS700 Stainless Steel Scraper, 1.3" Blade

VM-SS700B Stainless Steel Scraper with 1.3" Bent Blade

VM-SS702 Stainless Steel Scraper, 2" Blade

VM-SS7100

3 Piece Putty Knife Set

- Stainless steel, heat-treated blades; highly polished finish.
- Ergonomic handles.
- Flexible blades: 1.3", 2" and 3" widths.
- Includes one of each of the following in a black plastic tray with lid:



VM-SS705 Stainless Steel Putty Knife, 1.3" blade

VM-SS706 Stainless Steel Putty Knife, 2" blade

VM-SS707 Stainless Steel Putty Knife, 3" blade

VM-SS7200

3 Piece Knife Blade Scraper Set



- Knife blade scrapers have sharpened knife blade and are designed for scraping stubborn stuck gasket and adhesives.
- It has been proven through use that radius cutting edges cut into stubborn gasket materials better than stiff straight edge scraping tools.
- Two compound handles with thumb stop for extra control
- Stainless steel knife blades, heat treated 420 stainless.
- Blades are designed to be resharpened.
- Highly polished blades clean up easily.

- Includes one of each of the following in a plastic tray:

VM-SS710 Spoon Knife Blade Scraper

VM-SS711 Chisel Tip Knife Blade Scraper

VM-SS712 Oyster Knife Blade Scraper

ZZ-CCL4S

4 Piece Cornwell Plier Set

- Neon orange comfort grip handles.



- Set consists of the following Cornwell Pliers in a plastic tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
CCL-317	7-1/2" Long Nose Plier	CCL-420	9-1/2" Tongue & Groove Plier
CCL-337	7" Diagonal Cutting Plier	CCL-516	6" Slip Joint Plier



WARNING!

Vinyl or plastic plier handles do not protect from electrical shock.

ZZ-CCL-4TGS

4 Piece Cornwell Tongue & Groove Plier Set

- Neon orange comfort grip handles.

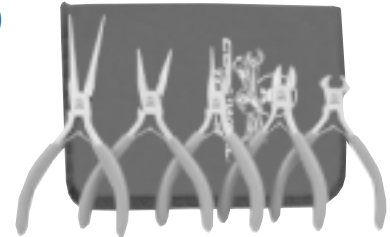


- Set consists of the following in a plastic tray:

PART NO.	DESCRIPTION
CCL-420	9-1/2" Tongue & Groove Plier
CCL-424	4-1/2" Tongue & Groove Plier
CCL-426	6-1/2" Tongue & Groove Plier
CCL-440	12" Tongue & Groove Plier

JS-301700

5 Piece Mini Precision Pliers Set



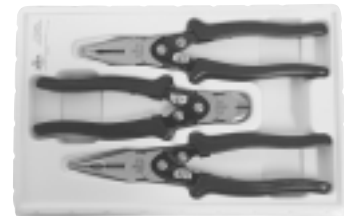
- Manufactured to ANSI specifications.
- Return springs riveted to handles.
- Carbon steel.
- Natural machine finish.
- Special clear coating to prevent rust.
- Orange PVC dipped handles.

- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301701	4-1/2" Mini Bent Nose Plier, 45°
JS-301702	4-1/2" Mini Long Nose Plier with Cutter
JS-301703	4" Mini Diagonal Plier
JS-301704	4" Mini End Cutter
JS-301705	5" Mini Needle Nose Plier

JS-301900T

3 Piece Compound Leverage Plier Set



- Advanced compound leverage design produces 60% more gripping/ cutting force than conventional designs.
- Requires less force to grip or cut an object, reducing strain on the hand; Full time spring helps reduce hand fatigue.
- Precision ground cutting edges are induction heat treated for maximum durability and superior cutting properties.
- 1/3 lighter than equivalent pliers.

- Set consists of the following in a plastic tray:

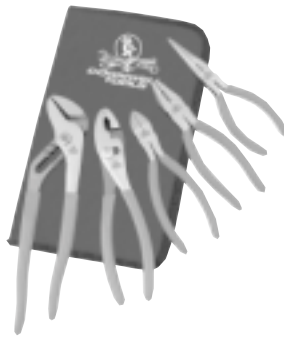
PART NO.	DESCRIPTION
JS-301901T	8-1/2" Long Nose Compound Leverage Plier
JS-301902T	7" Diagonal Compound Leverage Plier
JS-301903T	8" Linesman Compound Leverage Plier

PART NO.	OVERALL LENGTH	JAW LENGTH	JAW OPENING
JS-301901T	224mm	48.61mm	37mm
JS-301902T	188mm	12.97mm	15.18mm
JS-301903T	208mm	33.44mm	26.17mm

JS-301740

5 Piece Multi-Purpose Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.



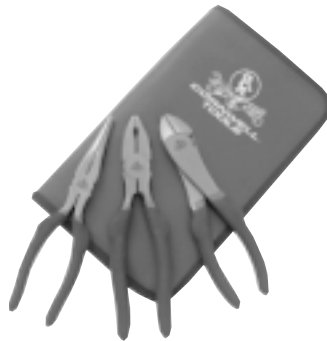
- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301802	8" Slip Joint Plier
JS-301814	10" Tongue and Groove Plier
JS-301820	6" Long Nose Plier with cutter
JS-301830	6" Linesman Plier
JS-301840	6" Diagonal Plier

JS-301790

3 Piece Black Chrome Plier Set

- Forged chrome Vanadium alloy steel with high polished finish with advanced Black-Chrome process for superior corrosion resistance.
- Double wall cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.



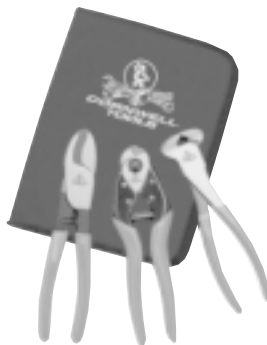
- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301791	8" Linesman Plier
JS-301792	7-1/2" Bent Wide Jaw Diagonal Plier
JS-301793	8" Long Nose Plier

JS-301795

3 Piece Heavy Duty Cutting Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.



- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301796	7" Wire Rope Spring Cutter Plier
JS-301797	8" Cable Cutter Plier
JS-301798	7" End Nipper Plier

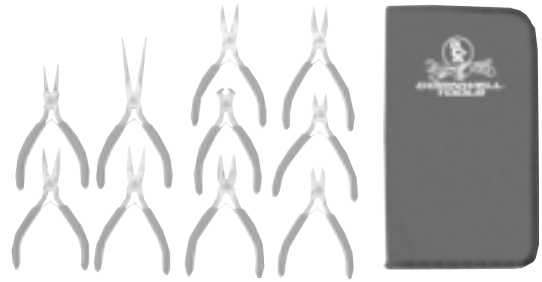


WARNING!

Vinyl or plastic plier handles do not protect from electrical shock.

JS-310910

10 Piece Precision Plier Set



- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.

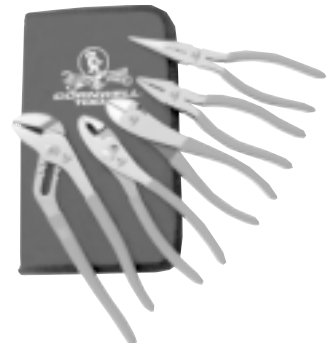
- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301701	5" Mini Bent Nose Plier, 45°
JS-301702	5" Mini Long Nose Plier with Cutter
JS-301703	4-1/2" Mini Diagonal Plier
JS-301704	4" Mini End Cutter
JS-301705	5-3/4" Mini Needle Nose Plier
JS-301912	Duck Bill Plier
JS-301913	Narrow Nose Duck Bill Plier
JS-301914	Linesman Plier
JS-301916	Snap Ring Plier
JS-301918	Narrow Nose Diagonal Plier

JS-301853

5 Piece Deluxe All Purpose Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.



- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301743	7-1/2" Bent Wide Jaw Diagonal Plier
JS-301822	8" Long Nose Plier
JS-301802	8" Slip Joint Plier
JS-301832	7" Linesman Plier
JS-301814	10" Tongue and Groove Plier

JS-310935

3 Piece Offset Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.



- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301743	7-1/2" Bent Wide Jaw Diagonal Plier
JS-301949	8" Bent Slip Joint Plier
JS-301936	8" Bent Long Nose Plier

JS-310945

5 Piece Slip Joint and Tongue & Groove Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Strong nut and bolt design for long lasting durability.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.

- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301946	8" Straight Jaw Tongue & Groove Plier
JS-301947	9-1/2" Curved Jaw Tongue & Groove Plier
JS-301948	6" Slip Joint Plier
JS-301949	8" Bent Slip Joint Plier
JS-301950	10" Slip Joint Plier



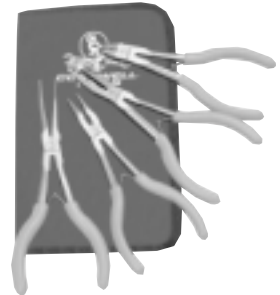
JS-301710

4 Piece Mini-LongREACH Precision Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.

- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301711	Diagonal Plier
JS-301712	Duck Bill Plier
JS-301713	Long Nose Plier
JS-301714	22" Bent Nose Plier



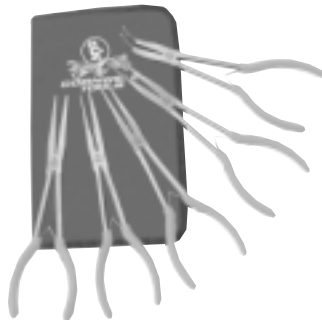
JS-301730

5 Piece 11" LongREACH Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.

- Set consists of the following in a zippered pouch:

PART NO.	DESCRIPTION
JS-301731	11" Long Nose Plier
JS-301732	11" 22° Bent Nose Plier
JS-301733	11" 45° Bent Nose Plier
JS-301734	11" 90° Bent Nose Plier
JS-301735	11" Duck Bill Plier



11" Needle Nose Pliers

- Ideal for reaching into recessed areas.
- Full 2-1/2" of serrations.
- Bent version allows knuckle clearance in obstructed areas.

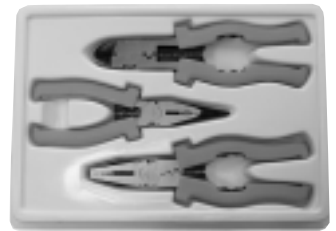


PART NO.	DESCRIPTION
KLT-611-PG	Straight Plier
KLT-611-PG3	45° Bent Plier

JS-301760T

3 Piece Plier Set

- Made of carbon steel with natural machine finish.
- Special clear coating prevents rust.
- PVC dipped handles.
- Includes one of each of the following in a plastic tray:

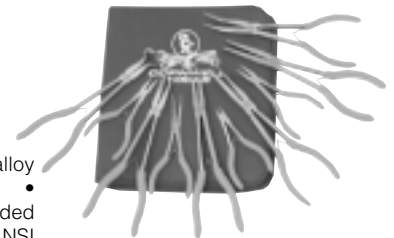


PART NO.	DESCRIPTION
JS-301761T	7" Long Nose Plier w/Cutter, Crimper
JS-301762T	8" Linesman Plier w/Cutter, Crimper, Stripper
JS-301763T	8" Diagonal Cutter Plier w/Crimper, Stripper

JS-301756

10 Piece Multi-Purpose Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.

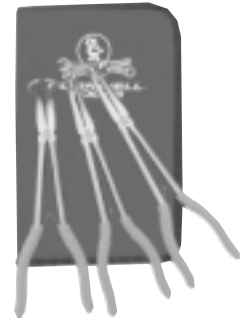


PART NO.	DESCRIPTION
JS-301711	Precision Diagonal Plier
JS-301712	Precision Duck Bill Plier
JS-301713	Precision Long Nose Plier
JS-301714	Precision Bent Long Nose Plier
JS-301731	11" Long Nose Plier
JS-301733	11" 45° Bent Nose Plier
JS-301735	11" Duck Bill Plier
JS-301786	11" Small Gripper Plier, 5/16"
JS-301787	11" Medium Gripper Plier, 1/2"
JS-301788	11" Large Gripper Plier, 3/4"

JS-301784

3 Piece 11" LongREACH Gripper Plier Set

- Forged chrome Vanadium alloy steel with high polished finish.
- Cushioned grip handles for added comfort.
- All pliers exceed ANSI performance standards.



PART NO.	DESCRIPTION
JS-301786	11" Small Gripper Plier
JS-301787	11" Medium Gripper Plier
JS-301788	11" Large Gripper Plier

KLT-526-PG

Long Reach 16" Heavy Duty Straight Needle Nose Plier

- Red cushion vinyl hand grips.
- Full 2-1/2" of serrations.



KLT-526-PG3

Long Reach 16" Heavy Duty 45° Needle Nose Plier

- Red cushion vinyl hand grips.
- Full 2-1/2" of serrations.
- Allows knuckle clearance in obstructed areas.



Cornwell Tongue and Groove Pliers

- NEON ORANGE comfort grips.
- Right angle teeth grip in all directions.
- Undercut tongue-and-groove design.
- Reinforcing edge minimizes stress breakage.

CCL-410

Cornwell Tongue and Groove Plier

- Four adjustments, slip joint.
- Jaw capacity: 1-1/8" (28.5MM). • Length: 9-1/2" (240MM).



CCL-414

Cornwell Tongue and Groove Plier

- Six adjustments, parrot nose design, slip joint.
- Jaw capacity: 2" (51MM). • Length: 14" (350MM).



CCL-420

Cornwell Tongue and Groove Plier

- Five adjustments, slip joint.
- Jaw capacity: 1-1/2" (38MM). • Length: 9-1/2" (240MM).



Cornwell Tongue and Groove V-Jaw Pliers



- V-Jaw allows for more points of contact on objects.
- Specially hardened right angle teeth allow for maximum gripping power in either direction of use, reducing the possibility of slipping.
- Patented undercut tongue & groove joint design forces plier halves together.
- Reinforcing edge to minimize stress breakage.
- Neon orange comfort grips.

PART NO.	LENGTH		ADJUSTMENTS	CAPACITY	
	IN.	MM		IN.	MM
CCL-422	9-1/2"	240	5	1-1/2"	38
CCL-432	10"	250	7	2"	51
CCL-442	12"	300	7	2-1/4"	57
CCL-463	16"	400	8	4-1/4"	108
CCL-483	20-1/4"	508	12	5-1/2"	140

CCL-424

Cornwell Tongue and Groove Plier

- Three adjustments, slip joint.
- Jaw capacity: 1/2" (12.5MM). • Length: 4-1/2" (114MM).



CCL-426

Cornwell Tongue and Groove Plier

- Five adjustments, slip joint.
- Jaw capacity: 7/8" (22MM). • Length: 6-1/2" (165MM).



CCL-428

Cornwell Tongue and Groove Plier

- Four adjustments, slip joint.
- Jaw capacity: 1-1/2" (38MM). • Length: 8" (200MM).



CCL-430

Cornwell Tongue and Groove Plier

- Seven adjustments, slip joint.
- Jaw capacity: 2" (51MM). • Length: 10" (250MM).



CCL-440

Cornwell Tongue and Groove Plier

- Seven adjustments, slip joint.
- Jaw capacity: 2-1/4" (57MM). • Length: 12" (300MM).



CCL-460

Cornwell Tongue and Groove Plier

- Eight adjustments, slip joint.
- Jaw capacity: 4-1/4" (108MM). • Length: 16" (400MM).



CCL-480

Cornwell Tongue and Groove Plier

- Twelve adjustments, slip joint.
- Jaw capacity: 5-1/2" (140MM). • Length: 20-1/4" (508MM).



CCL-307

Cornwell Parrot Nose Plier



- Specially treated drop forged steel. • Lower jaw with reinforced rib. • NEON ORANGE comfort grips. • Length: 7" (175MM). • Jaw capacity: 5/8" (16MM).

AE-8801-250

Alligator® Plier



- Box joint construction. • Self-gripping on pipes and nuts. • Jaw design eliminates nut-burring. • Special hardened teeth (approx. 62 HRC). • Guard to prevent pinched fingers. • Optimum lever action. • 7-position adjustment. • Chrome vanadium electric steel, oil-hardened. • Head polished, plastic coated handles. • Length: 10". • Working Capacities: For pipes: 1/8" to 1-1/2" diameter. For nuts: 1/4" to 1-3/8" flats.

Cobra® Pliers



- Box joint construction. • Push button action for single-handed adjustment directly on workpiece. • Selected jaw opening is positively ensured. • Self-gripping on pipes, bolts and nuts. • Jaw design eliminates nut-burring. • Special hardened teeth (approx. 62 HRC). • Guard to prevent pinched fingers. • Optimum lever action. • Chrome vanadium electric steel, oil-hardened. • Head polished, plastic coated handles.

PART NUMBER	LENGTH	NO. OF ADJ.	WORKING CAPACITIES For pipes (dia.)	For nuts (flats)
AE-8701-180	7" (180mm)	11	1/8" to 1-1/4"	3/8" to 1-1/8"
AE-8701-250	10" (250mm)	11	1/8" to 1-5/8"	3/8" to 1-1/2"
AE-8701-300	12" (300mm)	13	1/8" to 2"	3/8" to 1-7/8"

Linemen's Pliers

- Polished high carbon drop forged steel.
- Perfectly mated cutter, heat treated to hold its edge.
- CHANNELLOCK BLUE® comfort grips.

NOTE: CHANNELLOCK BLUE® dipped plastic grips are offered only for hand comfort and improved appearance. They are not recommended or warranted for dielectric properties.

CL-349

Wiremaster™ Linemen's Plier



- Heavy duty construction, round nose design. • High leverage handle design. • Enclosed-joint design holds cutters in perfect alignment for life of plier. • Length: 9" (225MM).

Cornwell Slip Joint Pliers

- Cross hatching on jaws grabs work tightly.
- Made of polished high carbon drop forged steel.
- NEON ORANGE comfort grips.

CCL-516

Cornwell Slip Joint Plier



- Thin nose design, shear-type wire cutter. • Length: 6" (150MM).

CCL-537

Cornwell Slip Joint Plier



- Precision tool with fine side cutter. • Length: 7" (175MM).

CCL-546

Cornwell Slip Joint Plier



- Heavy duty design for industrial use, shear-type wire cutter.
- Length: 6" (150MM).

CCL-548

Cornwell Slip Joint Plier



- Heavy duty design for industrial use, shear-type wire cutter.
- Length: 8" (200MM).

CCL-5410

Cornwell Slip Joint Plier



- Heavy duty design for industrial use, shear-type wire cutter.
- Length: 10" (250MM).

THE SIX MAJOR POINTS OF HAND TOOL SAFETY

1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

Cornwell Diagonal Cutting Pliers

- Polished, high carbon drop forged steel.
- Perfectly mated cutters, heat treated to hold its edge.
- NEON ORANGE comfort grips.

CCL-337

Cornwell Diagonal Cutting Plier

- High leverage, heavy-duty construction.
- Lap joint.
- Length: 7" (175MM).



CCL-338

Cornwell Diagonal Cutting Plier

- High leverage, heavy-duty construction.
- Lap joint.
- Length: 8" (200MM).



CCL-435

Cornwell Diagonal Cutting Plier

- Box joint.
- Length: 5" (125MM).



CCL-436

Cornwell Diagonal Cutting Plier

- Box joint.
- Length: 6" (150MM).



CCL-437

Cornwell Diagonal Cutting Plier

- Box joint.
- Length: 7" (175MM).



CCL-447

Cornwell Curved Diagonal Cutting Plier

- Box joint.
- Length: 7-3/4" (195MM).



WARNING!

Vinyl or plastic plier handles do not protect from electrical shock.

CCL-357

Cornwell End Cutting Plier

- Polished, high carbon drop forged steel.
- Perfectly mated cutter, heat treated to hold its edge.
- Neon Orange comfort grips.
- Length: 7" (175MM).



High Leverage Diagonal Cutters



- Designed for effortless cutting of piano, hard and soft wire.
- Fixed, forged-on axle rivet.
- Cutting edges separately induction-hardened (64 HRC) and factory tested.
- Head polished and handles plastic coated.

- Wire cutting capacities:

Type	AE-7401-200	AE-7401-250
Soft	7/32"	1/4"
Medium	11/64"	3/16"
Hard	1/8"	9/64"
Piano	3/32"	1/8"

PART NUMBER	LENGTH	PART NUMBER	LENGTH
AE-7401-200	8" (200mm)	AE-7401-250	10" (250mm)

KLT-311-PG

Long Reach 11" Diagonal Offset Cutting Plier



- Red cushion vinyl hand grips.
- High leverage and long reach cutting capability.

CCL-909

Cornwell Crimping and Cutting Tool



- Designed for crimping and cutting of both insulated and non-insulated solderless connections and terminals.
- Handles wire from 10 to 22 AWG.
- Features precision crimping dies and cutters.
- Slim nose shaped for tight spaces.
- Neon orange comfort grips.
- Length: 9-3/4".

Long Reach Pliers

- Designed for use in confined areas.
- Polished, high carbon drop forged steel.
- Precision matched jaws.
- Perfectly mated cutter, heat treated to hold edges.
- CHANNELLOCK BLUE® comfort grips.

CL-728

Long Reach Diagonal Cutter Plier



- Length: 7-1/2" (190MM).

CL-748

Long Reach End Cutter Plier



- Length: 8" (200MM).

CCL-911

Cornwell Cable Cutter Plier



- Cuts up to 4/0 aluminum and up to 2/0 soft copper. (Not designed for steel or ACSR.)
- Induction hardened cutting edges are made from special grade carbon steel.
- Neon orange comfort grips.
- Length: 9-1/2" (241mm).

CLS-11420

Hose Cutter



- Cuts flexible hose up to 1-1/4".
- Cut heater hose, fuel lines, wiper hoses and other flexible hoses.
- Stainless steel blade is reversible.
- Plier made of glass filled nylon.

LS-11450 Replacement Blade

SH-77667

Mighty Cutter

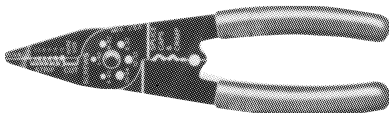


- All purpose cutter with razor sharp blades that cut cleanly.
- Can be used to cut hose, molding, weather-stripping with ease.

SH-77677 Replacement Blade

ML-1E69

Cutter-Crimper Tool



- Features plier nose scissors action with "up front" wire cutting and stripping.
- Hardened pivot joint bushing.
- Capacity for cutting, stripping and crimping is 10 to 22 gauge wire.
- Bolt cutter is from 4-40 to 10-24.

ML-15E

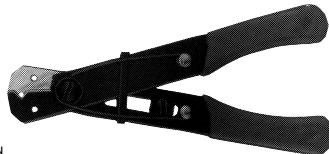
Multi-Purpose Electrical Pliers



- Strips 10/12/14/16/18/20 AWG wire.
- Strips 0.8/1.0/1.3/1.6/2.0/2.6 mm wire.
- Heat treated, precision ground blades.
- Handle lock and embossed wire size descriptions.
- Plastic grips for comfort only.
- Black oxide finish.
- Return spring and scissor-style cutter.
- Length: 6".

ML-101E

"V" Stripper-Cutter



- For stripping and cutting solid and stranded wire.
- Track adjustment-spring and slide lock.
- Hole in blade for looping wire.
- Hardened edge with ground blade.
- Black oxide finish and vinyl grips.
- Length: 5-1/2" (140MM).



WARNING!

Vinyl or plastic plier handles do not protect from electrical shock. Use approved eye protection when using tools.

Wire Strippers

- Made from high-carbon heat-treated steel.
- Designed for insulated, non-insulated, open barrel and closed-barrel connectors, terminals and splices.
- Free of any sharp edges or burrs which could jeopardize a quality installation.
- Long, curved cutter requires less force to cut.
- Wire looping holes in jaw.
- Pad printed, easy to read graphics.

ML-46E

Wire Stripper



- Pliers nose for working small nuts and pulling wire.
- Six stripping stations for both solid and stranded wire; 10-22 gauge.
- Crimps 10-22 gauge barrel-type insulated and non-insulated terminals.
- Crimps 7-8MM automotive terminals.
- Screw cutting/sizing stations for 10-24, 6-32, 8-32, 10-32, 4-40 & 5-40 screws.
- Screw cutting/sizing stations tighter to pivot to improve leverage and lessen force needed to shear screws.
- Cushion grips for comfort.
- Length: 8-1/4".

ML-52E

Wire Stripper



- Up-front cutter for snipping wires.
- Crimping stations for insulated and non-insulated terminals.
- Screw sizing stations (for 5 most popular screws) are collapsed around the pivot for greater leverage/less effort.
- Stripping stations for solid and stranded wire.
- 7-8MM auto ignition crimp.
- Air-pocket, cushioned grips for maximum comfort.
- Black oxide finish for durability and rust protection.
- Length: 8-1/2".

ML-56EB

Wire Stripper with Ergonomic Grips



- Pliers nose for working small nuts and pulling wire.
- Stripping stations for 10-18AWG solid and 12-20AWG stranded wire.
- Screw sizing stations for 6-32 and 8-32 screws.
- Lock to protect cutting edges when stored.
- Return spring to speed the work.
- Opening to stop to prevent spring from becoming disengaged.
- Long, ergonomic shaped handles for greater leverage and comfort.
- Sealed, air-pocket cushion grips.
- Length: 7-1/4".

MP-M3300

Crimper and Cutter Tool



- Two precision-ground wire cutters, four versatile crimping dies, five common size bolt cutters, wire stripper and two wire looping slots.
- Crimping: Trapezoid-type die for 22-14 AWG insulated terminals and 12-10 AWG insulated terminals; indenter-type die for 22-10 AWG non-insulated terminals.
- Bolt cutting: 6-32, 8-32, 10-32, 10-24 and 4-40.
- Stripping: stranded wire 22 to 10 AWG and solid wire 18 to 8 AWG.
- Cushioned handle for comfort, easy to read engraved markings.

TE-19000

Adjustable Wire Cutter/Stripper



- Cuts and strips solid or stranded wire.
- Handles 12-22 gage wire with single or multiple conductor.
- Automatically adjusts to wire size.
- Not designed to strip teflon or similar insulations.

ML-23E

Ignition Crimping Tool

- Crimps 7 & 8MM ignition terminals, high tower right angle ignition terminals, "W" or "F" crimp distributor terminals, right angle spark plug terminals.
- Crimps all solderless terminals, butted seam, brazed seam, PVC and nylon.
- Extra broad blade for cutting all types of ignition and primary wire.
- Strips 7 & 8MM ignition and #10 through 18 gauge primary wire.
- Cushion grip handles.
- Length: 9-1/2" (242MM).



ML-2E

Wire Stripper, Cutter and Crimper

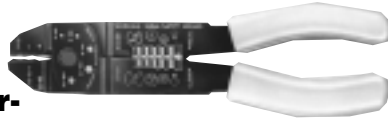
- AWG and Metric, full 1/2" scissor type cutting blades.
- Stripping stations for 22 to 10 and .5MM to 5.3MM.
- Perfect rethread and bolt cutting on 6/32, 8/32, 10/32 plus 3.5MM, 4MM, and 5MM.
- Crimping of both insulated and non-insulated terminals; also 7-8MM auto ignition.
- Air cushion vinyl grips.
- Length: 9-1/2".



ML-22E

Terminal Crimper-Wire Stripper

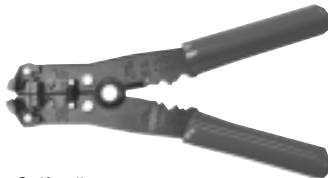
- Insulated terminal crimper, stripper and wire cutter for terminals 12-10 (yellow) and 22-14 (red and blue).
- Cleanly cuts bolt sizes 10-24, 10-32, 8-32, 6-32 and 4-40.
- Wire stripping stations for 22, 20, 18, 16, 14, 12 & 10.
- Pivot joint made of hardened steel.
- Black oxide finish with grips.
- Length: 7-1/2".



JR-5008F

Self Adjusting Wire Stripper

- Designed for heavy-duty use.
- Self-adjusts to most 10-26 gauge solid or stranded wire.
- Strips for splicing without damage to wire.
- Crimps terminals 10-22 gauge.
- Color coded crimping jaws with precision blade cuts.
- Precision machined wire cutter.
- Cushioned insulated handles for comfort and safety.



JR-5020F

5-in-1 Heavy Duty Easy Stripper

- Industrial-strength construction.
- Superior engineered compound leverage for user comfort.
- Automatically adjusts to strip AWG 10 to 24 gauge (or even smaller using the micro adjust knob) without damage to the conductors.
- Precision cutters work on any gauge wire with a HRC40°-50° blade.
- Three different crimpers permit work with insulated terminals 10-22 AWG, non-insulated terminals 10-22 AWG, and 7-8MM auto ignition terminals.



TH-436

Wire Insertion Tool

- For installation of wires or cable through rubber grommets such as those used in firewall or vehicle door.
- Sharp punch easily pierces thickest grommets.
- Hole through handles and 5/16" diameter punch shaft allows feeding of wire through tool and grommet.
- Ideal for installation of radios, alarm systems, cellular phones, heavy gauge wiring, etc.
- Stainless steel shaft.
- Vinyl tip cover.



TH-475

Jumbo Wire Insertion Tool

- Aids in the installation of radios, alarm systems, auxiliary lights, cell phones and much more!
- Sharp, punch-like end pierces thickest grommets with ease.
- Allows feeding the larger gauge wires through the tool to the other side of the fire wall or panel.
- 1/2" diameter stainless steel tube and hollow handle.
- Plastic guard protects punch end.



TH-476

2 Piece Wire Insertion Tool Set

- Kit includes the **TH-475** Jumbo Wire Insertion Tool (1/2" diameter) and the **TH-436** Wire Insertion Tool (5/16" diameter).
- Both tools feature the stainless steel tube and hollow handle designed to make quick work of any installation job.
- Aids in installing radios, alarm systems, cell phones, etc.



TB-WT2000

Plier Type Stripper

- Wire cutter for No. 10 AWG and smaller solid or stranded wire.
- Crimping nests for insulated and non-insulated terminals, splices and wire joints on No. 22 to No. 10 AWG, solid or stranded wire.
- Cutters have a chasing feature for screws, sizes 4-40, 6-32, 8-32, 10-24 and 10-32.
- Wire stripper removes most types of insulation from No. 22-10 AWG stranded wire and No. 18-8 AWG solid wire.



TB-WT111M

Terminal Installing Tool

- For installing "A" and "B" Sta-Kon® non-insulated terminals gauging .027 - .053, "C" Sta-Kon® non-insulated terminals gauging .072 - .098 and splices.
- Orange and black plastisol handles.
- Length: 9-19/32".



TB-WT112M

Terminal Installing Tool

- Installs insulated and non-insulated Sta-Kon® terminals, splices, disconnects, and wire joints 22-10 AWG.
- Orange and black plastisol handles.



WARNING!

Vinyl or plastic plier handles do not protect from electrical shock. Wear safety goggles.

Wire Twister Pliers

- Designed to do reliable safety wiring (lockwiring) rapidly and consistently, securing critical fasteners that must not be allowed to back out.
- Rigid construction jaws, finely finished cutting edges and a long life twist mechanism.
- 3-1/4" twists per pull.
- Hardened alloy steel, black oxide finish.
- Manual return.
- Right hand twist - safetytwist plier rotates clockwise when twister mechanism is pulled.

ML-1W



Wire Twister Plier

- Jaws twist/cut safety wire up to .060" in diameter. • Length: 9".

ML-11W

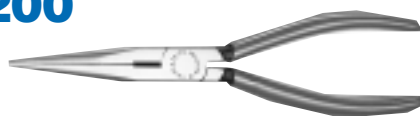


Mini Wire Twister Plier

- Jaws twist/cut safety wire up to .032" in diameter.
- Diagonal nose. • Length: 6".

AE-2611-200

Long Nose Straight Jaw Side Cutting Pliers



- Designed to cut hard and soft wire. • Long, flat round jaws with serrated gripping surfaces. • Cutting edges induction-hardened. • Material: Special tool steel, oil-hardened. • Plastic coated handles and polished head. • Length: 8" (200mm).

AE-2621-200

Long Nose 45° Bent Jaw Side Cutting Pliers



- Designed to cut hard and soft wire. • Long, flat round jaws with serrated gripping surfaces. • Cutting edges induction-hardened. • Material: Special tool steel, oil-hardened. • Plastic coated handles and polished head. • Length: 8" (200mm).

Cornwell Long Nose Pliers

- Perfectly mated cutters, heat treated to hold edges.
- Cross hatching on jaws.
- Polished high carbon drop forged steel.
- NEON ORANGE comfort grips.

CCL-317

Cornwell Long Nose Plier with Cutter



- Length: 7-1/2" (190MM).

CCL-318

Cornwell Long Nose Plier with Cutter



- Heavy Duty. • Length: 8-3/8" (212MM).

CCL-3017

Cornwell Long Nose Plier

- Length: 7-1/2" (190MM).



CCL-3036

Cornwell Long Nose Plier

- Slim nose to work in confined areas. • Length: 6" (150MM).



CCL-3037

Cornwell Long Nose Plier

- Slim nose to work in confined areas. • Length: 7-1/2" (190MM).



CL-386

Bent Long Nose Pliers



- Slender, perfectly mated jaws with no side wobble provide a firm grip on fine work in tight places. • Polished high carbon drop forged steel. • CHANNELLOCK BLUE® comfort grips. • Length: 5-1/2" (140MM).

CL-718

Long Reach Flat Nose Plier



- Designed for use in confined areas. • Polished drop high carbon forged steel. • Precision matched jaws. • Perfectly mated cutter, heat treated to hold edges. • CHANNELLOCK BLUE® grips. • Length: 8" (200MM).

VG-544T

5 Piece Vise-Grip® Clamp Set with T-shirt



- Set includes the following:

QTY.	PART NO.	DESCRIPTION
2	VG-6R	6" Locking C-Clamp
1	VG-10R	10" Straight Jaw Locking Pliers
2	VG-11R	11" Locking C-Clamp
1	--	Vise-Grip® T-Shirt, XL

VG-321GS

3 Piece Vise-Grip® Plier Set



- Set consists of one of each of the following and a kit bag:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VG-5WR	5" Curved Jaw Plier w/cutter	VG-10WR	10" Curved Jaw Plier w/cutter
VG-6LN	6" Long Nose Plier		

VG-428GS

4 Piece Vise-Grip® Plier Set



- Set consists of one of each of the following and a kit bag:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VG-5WR	5" Curved Jaw Plier w/cutter	VG-7R	7" Straight Jaw Plier
VG-6LN	6" Long Nose Plier	VG-10CR	10" Curved Jaw Plier

VG-538KB

5 Piece Vise-Grip® Plier Set

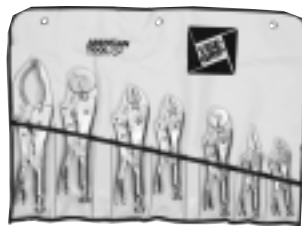


- Set consists of one of each of the following in a kit bag:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VG-5WR	5" Curved Jaw Plier w/cutter	VG-10R	10" Straight Jaw Plier
VG-6LN	6" Long Nose Plier	VG-10CR	10" Curved Jaw Plier
VG-7WR	7" Curved Jaw Plier w/cutter		

VG-757KB

7 Piece Locking Tool Set

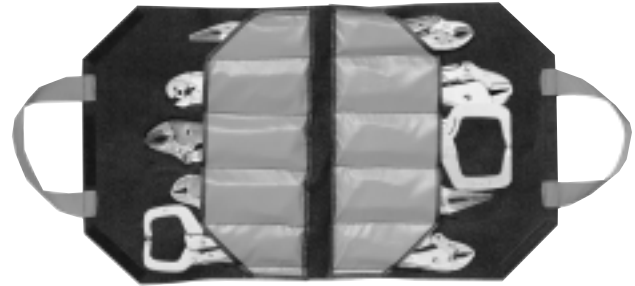


- Set includes the following in a kit bag:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VG-10WR	10" Curved Jaw Plier w/ cutter	VG-7LW	7" Locking Wrench
VG-6LN	6" Long Nose Plier	VG-5WR	5" Curved Jaw Plier w/ cutter
VG-7WR	7" Curved Jaw Plier w/ cutter	VG-12LC	12" Jaw Locking Pliers
VG-10LW	10" Locking Wrench		

VG-1078KB

10 Piece Vise-Grip® Set

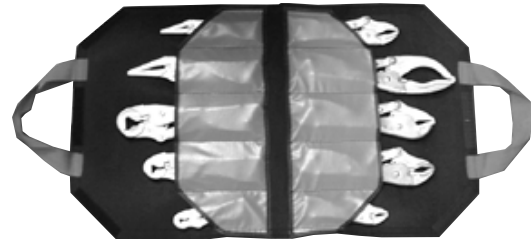


- Set includes the following in a kit bag:

PART NO.	DESCRIPTION
VG-5WR	5" Curved Jaw Locking Pliers
VG-6LN	6" Long Nose Locking Pliers
VG-6R	6" Locking C-Clamp w/regular tip
VG-7LW	7" Locking Wrench
VG-7R	7" Straight Jaw Locking Pliers
VG-7WR	7" Curved Jaw Locking Pliers
VG-9LN	9" Long Nose Locking Pliers
VG-10R	10" Straight Jaw Locking Pliers
VG-10WR	10" Curved Jaw Locking Pliers
VG-11R	11" Locking C-Clamp w/regular tip

VG-1080KB

10 Piece Vise-Grip® Set



- Set includes the following in a kit bag:

PART NO.	DESCRIPTION
VG-4LW	4" Locking Wrench
VG-7LW	7" Locking Wrench
VG-10LW	10" Locking Wrench
VG-6LN	6" Long Nose Locking Pliers
VG-9LN	9" Long Nose Locking Pliers
VG-7CR	7" Curved Jaw Locking Pliers
VG-5WR	5" Curved Jaw Locking Pliers w/ Cutter
VG-10WR	10" Curved Jaw Locking Pliers w/ Cutter
VG-10R	10" Straight Jaw Locking Pliers
VG-12LC	Large Jaw Locking Pliers



WARNING!

Vinyl or plastic plier handles do not protect from electrical shock. Use approved eye protection when using tools.

VG-76SG

3 Piece Soft Grip Plier Set



- Set consists of one of each of the following:

PART NO.	DESCRIPTION
VG-03SG	7" Straight Jaw Locking Plier-Soft Grip
VG-05SG	10" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-14SG	6" Long Nose Jaw Locking Plier-Soft Grip

VG-82SG

2 Piece Soft Grip Plier Set



- Set consists of one of each of the following:

PART NO.	DESCRIPTION
VG-05SG	10" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-09SG	5" Curved Jaw Locking Plier w/wire cutter-Soft Grip

VG-85SG

2 Piece Soft Grip Plier Set



- Set consists of one of each of the following:

PART NO.	DESCRIPTION
VG-09SG	5" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-14SG	6" Long Nose Jaw Locking Plier-Soft Grip

VG-94SG

4 Piece Soft Grip Plier Set with Kit Bag



- Set consists of one of each of the following and a kit bag:

PART NO.	DESCRIPTION
VG-01SG	10" Straight Jaw Locking Plier-Soft Grip
VG-05SG	10" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-14SG	6" Long Nose Jaw Locking Plier-Soft Grip
VG-15SG	9" Long Nose Jaw Locking Plier-Soft Grip

VG-538KBSG

5 Piece Soft Grip Plier Set with Kit Bag



- Set consists of one of each of the following and a kit bag:

PART NO.	DESCRIPTION
VG-01SG	10" Straight Jaw Locking Plier-Soft Grip
VG-07SG	7" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-09SG	5" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-11SG	10" Curved Jaw Locking Plier-Soft Grip
VG-14SG	6" Long Nose Jaw Locking Plier-Soft Grip

VG-757KBSG

7 Piece Soft Grip Plier Set with Kit Bag



- Set consists of one of each of the following and a kit bag:

PART NO.	DESCRIPTION
VG-02SG	10" Locking Wrench-Soft Grip
VG-04SG	7" Locking Wrench-Soft Grip
VG-05SG	10" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-07SG	7" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-09SG	5" Curved Jaw Locking Plier w/wire cutter-Soft Grip
VG-12SG	12" Large Jaw Locking Plier-Soft Grip
VG-14SG	6" Long Nose Jaw Locking Plier-Soft Grip

VG-6BN

Bent Nose Locking Plier with Wire Cutter



- Made of the finest quality high-grade alloy steel.
- Heat-treated for maximum durability and bright, nickel finished.
- Nose is bent at 35° angle. Excellent for reaching hard-to-get-at places.
- Locks to provide additional leverage and support.
- Guarded release trigger quickly unlocks jaws.

LENGTH	JAW THICKNESS		JAW ADJUSTMENT	
	AT TIP	AT BASE	AT TIP	AT BASE
6"	5/32"	5/16"	0 to 2-1/4"	0 to 1-5/16"



WARNING!

Vinyl or plastic plier handles do not protect from electrical shock. Use approved eye protection when using tools.

Curved Jaw Locking Pliers



- Made of the finest quality high-grade alloy steel. • Heat-treated for durability and bright, nickel finished. • Involute jaw curve permits user to put tremendous pressure on four points of any style nut or bolt head. • Guarded release trigger quickly unlocks jaws. • Wire cutter on some pliers will handle up to a 1/4" bolt.

PART NO.	LENGTH	JAW THICKNESS	JAW ADJUSTMENT
WITH CUTTERS			
VG-4WR	4"	7/32"	0 to 15/16"
VG-5WR	5"	1/4"	0 to 1-1/4"
VG-7WR	7"	5/16"	0 to 1-5/8"
VG-10WR	10"	7/16"	0 to 1-7/8"
WITHOUT CUTTERS			
VG-7CR	7"	5/16"	0 to 1-5/8"
VG-10CR	10"	7/16"	0 to 1-7/8"

Straight Jaw Locking Pliers



- Made of the finest quality high-grade alloy steel. • Heat-treated for durability and bright, nickel finished. • Heavy duty jaw grips work of all shapes. • Locks to work, hold tight and won't slip.

PART NO.	LENGTH	JAW THICKNESS	JAW ADJUSTMENT
VG-7R	7"	1/2"	0 to 1-1/8"
VG-10R	10"	5/8"	0 to 1-5/8"

Long Nose Locking Pliers with Wire Cutter



- Made of the finest quality high-grade alloy steel. • Heat-treated for durability and bright, nickel finished. • Tapered nose ideal for delicate work, hobbies, tight spaces, electronics, and clamping of small parts. • Wire cutter will handle up to a 1/4" bolt. One bite cuts smaller wires; progressive bites cut through the big ones. • Guarded release trigger quickly unlocks jaws.

PART NO.	LENGTH	JAW THICKNESS	JAW ADJUSTMENT
VG-4LN	4"	1/8" at tip, 1/4" at base	0 to 1-5/8" at tip, 0 to 11/16" at base
VG-6LN	6"	5/32" at tip, 5/16" at base	0 to 2-1/4" at tip, 0 to 1-5/16" at base
VG-9LN	9"	3/16" at tip, 13/32" at base	0 to 2-7/8" at tip, 0 to 1-5/16" at base

* U.S. Patent 4,541,312; U.S. Patent 4,730,524; U.S. Patent 4,546,680; U.S. Patent 4,709,601. Other U.S. and foreign patents issued and pending.

Replacement Springs (Not Illustrated)

PART NO.	USED WITH:
VG-08	10CR, 10R, 10WR, 20R
VG-22	7CR, 7R, 7WR, 8R, 9LN, 9R, 11R, 11SP, 11HD, RR
VG-52	5WR, 6LN, 6R, 6SP

VG-20R Locking Chain Clamp



- Holds and locks around any shape, any size. • Adjusts quickly for ratchet action in either direction. • Length: 9". • Chain length: 18".

Large Jaw Locking Pliers



- Ideal for freeing stubborn oil filters, exhaust work, removing radiator hoses, aligning water pump flanges and changing shock absorbers. • Large heavy duty curved jaws, with hardened tooth design, grip around work of all shapes. • High-grade alloy steel construction; locks onto work without slipping. • Easy locking, quick-release action.

PART NO.	LENGTH	JAW OPENING
VG-6LC	6"	1-1/2"
VG-12LC	12"	3-1/8"

WISE-GRIP® SOFT GRIP LOCKING PLIERS FEATURES:

- Non-slip rubberized grips that reduce vibrations and hand fatigue, while increasing comfort and leverage. • The adjusting screw on the handle lets you fine-tune the amount of pressure; simply turn the screw to fit the work, then squeeze the handle with one hand to lock on with a vise-like grip. • Soft grip locking pliers feature various jaw types and a hardened tooth design that grip from any angle. • Use for turning, cutting, tightening, clamping and twisting. • Some models equipped with built-in wire cutters. • Bright, nickel-plated finish for resistance to corrosion. • A simple squeeze of the hand exerts up to one ton of pressure between the jaws. • Flipping the handle quickly unlocks the jaws for quick repositioning. • Unique guarded release trigger lever prevents accidental releases and pinching.

Curved Jaw Locking Pliers - Soft Grip



- Curved jaws provide a better fit around round stock. • Use as non-slip pipe wrench, pliers, adjustable wrench, emergency handle, as added leverage to screwdriver, or as an all-purpose clamp. • Three models listed below have built-in wire cutters.

PART NO.	LENGTH	JAW THICKNESS	JAW ADJUSTMENT
WITH CUTTERS			
VG-05SG	10"	7/16"	0 to 1-7/8"
VG-07SG	7"	5/16"	0 to 1-5/8"
VG-09SG	5"	1/4"	0 to 1-1/4"
WITHOUT CUTTERS			
VG-11SG	10"	7/16"	0 to 1-7/8"
VG-13SG	7"	5/16"	0 to 1-5/8"

Straight Jaw Locking Pliers - Soft Grip



- Straight jaw allows for maximum contact on flat, square or hex work. • Popular in welding and other metal work. • Use for safer grinding or as a portable vise.

PART NO.	LENGTH	JAW THICKNESS	JAW ADJUSTMENT
VG-01SG	10"	5/8"	0 to 1-5/8"
VG-03SG	7"	1/2"	0 to 1-1/8"

Long Nose Locking Pliers - Soft Grip with Wire Cutter



- For use in narrow spaces. • Clamp or tighten bolts or extract items in hard-to-reach places. • Ideal for precision work and hobbies. • Feature built-in wire cutters.

PART NO.	LENGTH	JAW THICKNESS	JAW ADJUSTMENT
VG-14SG	6"	5/32" at tip, 5/16" at base	0 to 2-1/4" at tip, 0 to 1-5/16" at base
VG-15SG	9"	3/16" at tip, 13/32" at base	0 to 2-7/8" at tip, 0 to 1-5/16" at base

Large Jaw Locking Pliers - Soft Grip



- Heavy duty jaw grips around work of all shapes. • Useful for plumbers, mechanics, welders and others who work with large objects.

PART NO.	LENGTH	JAW OPENING
VG-12SG	12"	3-1/8"
VG-26SG	6"	1-1/2"

Vise-Grip® Locking Wrenches

- Designed to lock on three sides of a hex fastener. • Adjust to a range of over 16 standard and metric wrench sizes. • Heavy duty jaws with knurled tips will not slip or mar. • Adjusting screw for changing size and pressure. • Heat treated high grade alloy steel construction. • Guarded release trigger for quick opening and wire cutter.



PART NO.	ADJUSTMENT RANGE:
VG-4LW	1/4" to 9/16" (7MM to 14MM)
VG-7LW	7/16" to 3/4" (11MM to 19MM)
VG-10LW	5/8" to 1-1/8" (15MM to 28MM)

Vise-Grip® Locking Wrenches-Soft Grip



- Non-slip rubberized grips to reduce vibrations and hand fatigue and increasing comfort and leverage. • Designed to lock on three sides of a hex fastener. • Adjust to a range of over 16 standard and metric wrench sizes. • Heavy duty jaws with knurled tips will not slip or mar. • Adjusting screw for changing size and pressure. • Heat treated high grade alloy steel construction. • Guarded release trigger for quick opening and wire cutter.

PART NO.	ADJUSTMENT RANGE:
VG-02SG	5/8" to 1-1/8" (15MM to 28MM)
VG-04SG	7/16" to 3/4" (11MM to 19MM)

VG-RR

Locking Pinch-Off Tool



- Pinches off and locks on tubing. • Specially designed for the refrigeration industry. • Length: 7". • Jaw Thickness: 1/4". • Throat Depth: 1".

Quick-Grip® Spring Clamps

- Designed for one-handed use. • Strong, lightweight, rust resistant. • Soft, pliable removable pads protect finishes. • Jaw contoured to hold round and odd-shaped objects. • Made of high-tech resin material. • Non-slip handles for comfortable hand span.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VG-58100	1" (25MM) Opening	VG-58300	3" (75MM) Opening
VG-58200	2" (50MM) Opening		

ML-625R

6 Piece QuarterTurn™ Retaining Ring Plier Set

- Unique design provides stability. • Pivot will not loosen while using tool. • Cushion grip handles. • Handles internal and external rings from 1/4 - 2". • Set consists of one of each of the following in a custom molded plastic storage case:



PART NUMBER	TYPE	TIP DIAMETER
ML-1202R	Straight	.038"
ML-120290R	90° Angle	.038"
ML-3202R	Straight	.047"
ML-320290R	90° Angle	.047"
ML-3402R	Straight	.070"
ML-340290R	90° Angle	.070"

ML-1225R

12 Piece QuarterTurn™ Retaining Ring Plier Set

- Unique design provides stability. • Pivot will not loosen while using tool. • Cushion grip handles. • Handles internal and external rings from 1/4 - 3-1/2". • Set consists of one of each of the following in a custom molded plastic storage case:



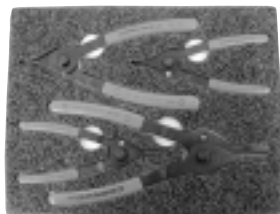
PART NUMBER	TYPE	TIP DIAMETER
ML-1202R	Straight	.038"
ML-120245R	45° Angle	.038"
ML-120290R	90° Angle	.038"
ML-3202R	Straight	.047"
ML-320245R	45° Angle	.047"
ML-320290R	90° Angle	.047"
ML-3402R	Straight	.070"
ML-340245R	45° Angle	.070"
ML-340290R	90° Angle	.070"
ML-5602R	Straight	.090"
ML-560245R	45° Angle	.090"
ML-560290R	90° Angle	.090"

ZZ-ML4PFS

4 Piece Convertible Retaining Ring Plier Set

- Set consists of one of each of the following in a polyfoam tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
ML-12	6" Plier, .038 Straight Tip	ML-34	7-3/4" Plier, .070 Straight Tip
ML-32	6" Plier, .047 Straight Tip	ML-56	8" Plier, .090 Straight Tip



ML-43R

12 Piece Convertible Retaining Ring Plier Set

- Covers complete range of rings from 1/4" to 3-1/2" of both internal and external pliers.
- Twelve convertible pliers tips diameter .038, .047, .070 and .090 with straight, 45° and 90° bend.
- Comfortable vinyl grips.
- Packed in a shock resistant plastic case with handle and storage space for spare rings.



PART NUMBER	TYPE	TIP DIAMETER
ML-12	Straight	.038
ML-12-45	45° Angle	.038
ML-12-90	90° Angle	.038
ML-32	Straight	.047
ML-32-45	45° Angle	.047
ML-32-90	90° Angle	.047
ML-34	Straight	.070
ML-34-45	45° Angle	.070
ML-34-90	90° Angle	.070
ML-56	Straight	.090
ML-56-45	45° Angle	.090
ML-56-90	90° Angle	.090

ML-690R

6 Piece Convertible Retaining Ring Set

- Handles a wide range of sizes of internal and external retaining rings.
- Converts from internal to external by moving screw over.
- Heat treated; comfortable vinyl grips.

Set consists of the following:

PART NO.	LENGTH	TIP SIZE	TIP ANGLE
ML-12	6"	.038	Straight
ML-12-90	6"	.038	90°
ML-32	6"	.047	Straight
ML-32-90	6"	.047	90°
ML-34	7-3/4"	.070	Straight
ML-34-90	7-3/4"	.070	90°



ML-4936R

Horseshoe Snap Ring Plier

- Extra large lock ring plier with replaceable tips.
- Maximum tip spread: 2-1/2".
- Vinyl cushion grips.
- Length: 14" (350MM).

ML-41R Replacement tips (pr.)



Convertible Retaining Ring Pliers

- Handles a wide range of sizes of internal and external retaining rings.
- Converts from internal to external by moving screw over.
- Heat-treated; comfortable vinyl grips.



PART NUMBER	LENGTH	TIP SIZE	TIP ANGLE
ML-12	6"	.038	Straight
ML-12-45	6"	.038	45°
ML-12-90	6"	.038	90°
ML-32	6"	.047	Straight
ML-32-45	6"	.047	45°
ML-32-90	6"	.047	90°
ML-34	7-3/4"	.070	Straight
ML-34-45	7-3/4"	.070	45°
ML-34-90	7-3/4"	.070	90°
ML-56	8"	.090	Straight
ML-56-45	8"	.090	45°
ML-56-90	8"	.090	90°

ML-444K

Internal and External Retaining Ring Plier Set

- Set includes one each of the following in a plastic tray plus one tip set. [When ordered individually, each plier comes with a ML-448-2S tip set]



PART NO.	DESCRIPTION
ML-445A	Internal Retaining Ring Plier
ML-446A	External Retaining Ring Plier

ML-448-2S Tip Set

ML-448S

Retaining Ring Plier Tip Set

- Set consists of one pair of each of the following in a plastic box:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
ML-448-1	90° angle, .038 diameter	ML-448-3	Straight, .047 diameter
ML-448-2	45° angle, .047 diameter	ML-448-4	Straight, .070 diameter

ML-448-2S Retaining Ring Plier Tip

Set - consists of two pairs of each of the above in chart.



ML-7

Large Internal Retaining Ring Plier

- For internal retaining rings from 3-1/16" to 6" in diameter.
- Double tooth ratchet safety device prevents rings from releasing their tension and permits assembly and removal of rings without having to maintain pressure on the handles.
- Comes with replaceable straight tips.
- Length: 16".

ML-7-90 90° Repl. Tips (pr.)

ML-78 Straight Repl. Tips (pr.)



ML-47R

External Lock Ring Plier

- Designed for standard applications.
- Jaws are scored on the outside to hold rings securely on removal and installation.
- Right angle tip.
- Length: 8-1/2".



ML-48R

External Lock Ring Plier

- Thin nose design for work in close clearance areas.
- Jaws scored on outside to hold rings securely on removal and installation.
- Straight tip.
- Length: 8-1/2".



ML-22

Fixed Tip Retaining Ring Plier, External

- Come with grips but without spring and stop.
- Tip Size: .038".
- Tip Angle: Straight.



HTT-1265-K

3 Piece Retaining Ring Kit

- Provides service for over 90% of all internal and external retaining ring applications.
- Contains retaining ring pliers and sixteen pairs of alloy steel color coded tips with hex wrench packaged in a convenient custom molded plastic case.
- Set consists of the following:



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
HTT-1221S	Retaining Ring Plier	HTT-65	Retaining Ring Plier
HTT-1234	Retaining Ring Plier		

HTT-1221S

Retaining Ring Pliers



- Services miniature and small retaining rings.

SERVICES	SAE	MM
Internal	1/4" to 1"	8 to 26mm
External	1/8" to 1"	3 to 26mm

- Compact plier with adjustable stop to improve efficiency of internal ring installation and prevent damage to external rings.
- Patented push-button feature to convert easily from internal to external use.
- Six point broached jaw openings and spring return handles.
- Contains five (5) pairs of alloy steel color coded tip and hex wrench.

TIP SIZES	SAE	MM
Straight	.023", .036", .047"	.6mm, .9mm, 1.2mm
Bent 90°	.036", .047"	.9mm, 1.2mm

HTT-12 Replacement Tip Set

HTT-65

Retaining Ring Pliers

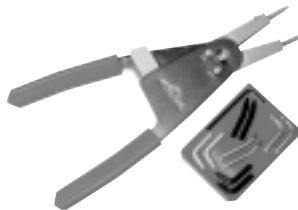
- Services large retaining rings.

SERVICES	SAE	MM
Internal	1-13/16" to 4"	31 to 100mm
External	1-1/2" to 4"	32 to 100mm

- Patented automatic ratchet lock keeps rings open or closed.
- Patented push-button feature to convert easily from internal to external use.
- Twelve point broached jaws and spring return handles.
- Contains six (6) pairs of alloy steel color coded tip and hex wrench.

TIP SIZES	SAE	MM
Straight	.090", .108", .120"	2.3mm, 2.7mm, 3mm
Bent 90°	.090", .108", .120"	2.3mm, 2.7mm, 3mm

HTT-651590 Replacement Tip Set



HTT-1234

Retaining Ring Pliers

- For internal and external use.

SERVICES	SAE	MM
Internal	3/8" to 2"	10 to 48mm
External	1/4" to 2"	7 to 48mm

- Patented push-button feature to convert easily from internal to external use.
- Six point broached jaw openings and spring return handles.
- Contains five (5) pairs of alloy steel color coded tip and hex wrench.

TIP SIZES	SAE	MM
Straight	.036", .047", .070"	.9mm, 1.2mm, 1.8mm
Bent 90°	.036", .047"	.9mm, 1.2mm

HTT-14 Replacement Tip Set

PSG-4MSR

4 Piece Mini Snap Ring Plier Set

- Ideal for small snap rings in tight places.
- All pliers have return springs.
- Heat treated for strength and durability.
- Coated handles for a sure comfortable grip.
- Set consists of the following in a plastic tray:



PART NO.	DESCRIPTION
PSG-4MSRA	External 60° 3" Mini Snap Ring Plier
PSG-4MSRB	External Straight 3" Mini Snap Ring Plier
PSG-4MSRC	Internal 60° 3" Mini Snap Ring Plier
PSG-4MSRD	Internal Straight 3" Mini Snap Ring Plier

ML-602R

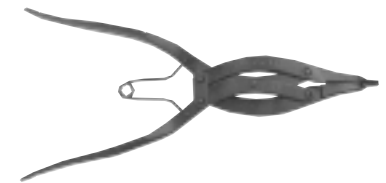
Snap Ring Plier



- Remove/install snap rings with reverse bevel end, used to locate bearing on shafts of transmissions, differentials, etc.
- Maximum spread: 1-7/16".
- Spring closure, vinyl grips.
- Black oxide finish.
- Length: 9".

WK-G705

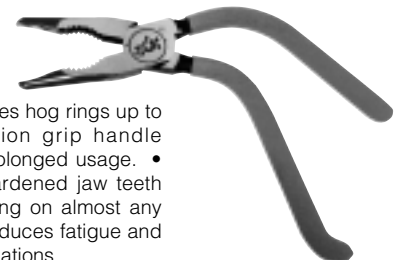
Lock Ring Plier



- Spreads snap lock rings on brakes, transmission, and machine tools.
- Thin jaws open in parallel plane.
- Compound leverage.
- Red grips on handles.
- Length: 10".

PSG-HRP

Hog Ring Plier



- 8" Overall length.
- Handles hog rings up to 1.75".
- Soft foam cushion grip handle coverings for comfortable prolonged usage.
- Includes multi-functioned hardened jaw teeth for long life and solid gripping on almost any surface.
- Unique design reduces fatigue and improves use in many applications.



WARNING!

Vinyl plier handle covers are not intended to act as insulators.

RB-512

Large Flexible Line Clamp Pliers



- Clamp off heater hoses and general purpose flexible line with 1/2" to 3/4" I.D.
- Handle locking system holds pliers in place and allows one-hand sealing of flexible line.
- Smooth rounded jaws prevent damage to the internal line.
- Bright yellow.
- Made from a light weight non-conductive reinforced nylon.

MH-28650

Flexible Hose Clamp Plier



- Utilizes a flexible cable with a precision machined clamp at the end to reach where other pliers can not.
- Flexibility to reach, remove and lock clamps into the open position.
- Remove plastic self-tightening or metal hose clamps with diameters from 11/16" to 2-1/2" (18mm to 54mm).
- Locking mechanism on the pliers allows user to release the hose clamp plier and work with both hands.

MH-28654 Replacement sheath, cable & clamp

LS-35610

Universal Flat Band Hose Clamp Tool



- Flexible 20" cable reaches remote locations.
- Works in confined spaces where pliers won't reach.
- Expands hard-to-reach flat-band and Mobe-type hose clamps.
- To use, simply squeeze the handle lever to expand and hold hose clamps in any open position.
- For use on clamps found on radiator hoses, heater hoses and fuel lines.
- Will also expand Mobe-type clamps to the self-lock position.

SL-95600

Adjustable Hose Clamp Pliers



- For accessing, releasing tension and removing most constant tension hose clamps regardless of their size.
- Comfortable hand grip width for easy one hand squeezing.
- Deep slotted tips to firmly hold clamp.
- Tips rotate 360° allowing for optimum positioning.
- Made from heat treated steel with soft grip handles.

SL-96600

Universal Hose Pliers



- For removal and installation of hoses in confined areas or difficult positions due to corrosion.
- Able to power rotate the hose to break it loose from fitting.
- Rotates up to 90° for removal or installation.
- Specially designed tips grip a large surface area to reduce damage and help remove hose.
- Quality steel pliers with soft-grip handles.
- Fits variety of hoses between 1/2" to 3/4" in diameter.

CCL-558

Cornwell Hose Plier



- Special jaw design holds clamp ends from either nose or the sides.
- Polished high carbon drop forged steel.
- Neon Orange comfort grip handles.
- Length: 8" (200MM).

KD-3454

Angled Hose Clamp Pliers



- Used to remove and install flat type hose clamps in hidden and hard-to-reach areas.
- Features 45° jaws that swivel to grip at any angle and a ratcheting mechanism to latch pliers securely in position.

KD-3444

Large Hose Clamp Pliers



- Large size for heavy duty jobs.
- Use on Ford, GM, Chrysler, and some import vehicles for removal/installation of flat type hose clamps.
- Features a fine-tooth locking ratchet and jaws that swivel to nearly every angle.

ML-54Z

Mini Hose Pinch-Off Plier



- Ideal for use on radiator hoses, heater hoses, water, air, vacuum and fuel lines.
- Patented clamping mechanism locks automatically - no screws or levers to set or adjust!
- Made from high carbon heat treated steel for extended life.
- Black oxide coated to resist rust and corrosion.
- Cushioned hand grips.
- Robust and reliable performance - tested to 50,000 cycles without failure.
- 3/4" OD capacity.
- Length: 5-1/2"; Weight: 4 oz.

ML-55Z

Hose Pinch-Off Plier



- Patented mechanism provides positive clamping without springs or manual adjustments.
- Heat treated steel construction; black oxide finish.
- Cushioned hand grips.
- Length: 9"; Weight: 11.7 oz.

ML-56Z

Large Hose Pinch-Off Pliers



- Great for radiator and heater hoses, vacuum and fuel lines.
- Tested to 50,000 cycles without failure for reliable performance.
- Patented clamping mechanism; no adjustment needed, simply squeeze to lock.
- Cushion hand grips.
- 2-1/2" O.D. capacity.

AC-875

Hose Clamp Plier



- For removing and installing spring wire hose clamps. • Fingertip feature makes it possible to lock plier in any one of three positions. • Jaws swivel through 180°. • Deep slots in jaws hold clamp securely. • All working parts tempered steel, zinc plated.

LS-17100

Flat Band Hose Clamp Plier



- Remove and install flat band hose clamps on heater and radiator hoses. • Tips screw in and out to fit all clamp sizes; can be switched to accommodate different applications. • Ratcheting lock mechanism holds clamp in open position for easy removal and installation. • Offset jaws for access to hard-to-reach areas.

KD-3252

Flat Band Hose Clamp Pliers



- Designed to remove and install newer style flat band clamps used on various hose assemblies. • For Ford, GM, and some imports.

LS-47900

Hose Remover Pliers



- For easy removal of 5/32" to 1/2" vacuum and fuel hoses that are difficult to remove due to cramped engine compartments or from being "baked on" due to high engine temperatures. • Engage line with sharpened black jaw to "dig" into line, squeeze, and silver jaw easily pushes off hose.

VC-710XX136

Tube-Grip® with Black All-in-One Silicone



- Designed to accurately dispense materials from flexible tubes. • Eliminates mess and eases the difficulty of squeezing tubes. • Dispense the thickest sealants through very small openings with greater control of amount used and where it is applied. • Allows user to get the most of the material in each tube. • Comes with 3 oz. tube of Premium Grade RTV All-in-One Silicone which is oxygen sensor safe, solvent resistant, low volatility, and is effective up to 600°F. (Restrictions: Most paints do not adhere. Not recommended for underwater caulking applications.)

SE-64399

Green Utility Knife



- Rugged die-cast green handle shaped for comfortable grip. • Design prevents blade from pushing up through the handle when applying pressure. • Spring-loaded thumb switch adjusts blade to three cutting positions and retracts for safe locking. • Includes three blades.

SE-63185 Replacement Blade

KD-21-360

Challenger Hacksaw



- High tension adjustment keeps blades rigid. • Heavy duty tubular frame with die cast end and handle resists twisting and bending. • Removable pins for quick change to flush cutting. • Extra blades store in the tube. • Comfortable grip. • Accommodates 12" blades only. • Length: 16-1/4".

Molybdenum High Speed Steel Blades



- Flexible backs for professional sawing. • Cut tough alloys quickly and cleanly. • Double heat treatment makes cutting edges hard and sharp; back is flexible for less breakage.

PART NO.	LENGTH	TEETH
VA-48221	10"	24
VA-48225	12"	18
VA-48226	12"	24
VA-48227	12"	32

High Carbon Steel Blades



- Excellent cutting in most metals. • For cutting non-ferrous metals and low carbon steels. • Double heat treated for hard cutting edges and flexible back for less breakage.

PART NO.	LENGTH	TEETH
VA-48216	12"	18
VA-48217	12"	24



WARNING!

Wear safety goggles when using cutting tools. Wear safety gloves to protect hands against sharp edges.

GT-CRN3

GATCO Master Knife Display

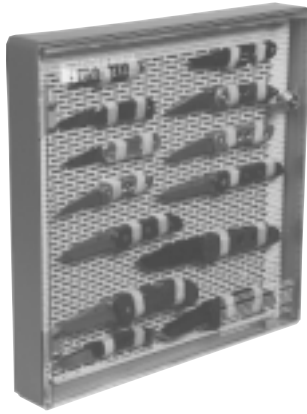


- Display consists of the following knives:

QTY.	PART NO.	DESCRIPTION
1	GT-10411	Vallotton Locking Liner, Combo Edge
1	GT-10413	Vallotton Locking Liner, Plain Edge
1	GT-10415	Vallotton "EMT" Emergency Management Tool
1	GT-11231	Worden Tactical-Medium, Combo Edge
1	GT-11233	Worden Tactical-Medium, Plain Edge
1	GT-11291	Worden Tactical-Large, Combo Edge
1	GT-11293	Worden Tactical-Large, Plain Edge
1	GT-20411	Envoy, Combo Edge
1	GT-20413	Envoy, Plain Edge
1	GT-7213	Lightfoot ZAMBEZI Fixed Blade, Combo Edge
1	GT-7221	Lightfoot Mini Pit Bull, Combo Edge
1	GT-7223	Lightfoot Mini Pit Bull, Plain Edge
1	GT-40210	Cornwell Logo Knife
1	GT-2013	Treutel Gut Hook Skinner

CKT-2003R

CKT Master Knife Display



- Display consists of the following knives:

QTY.	PART NO.	DESCRIPTION
2	CKT-2232	Falcon Razor Edge Knife
1	CKT-4112	Michael Walker Combination Knife
3	CKT-5202L	Rollock Razor Knife
3	CKT-5212K	Rollock Black Handle Knife
2	CKT-5510K	Black K.I.S.S. Knife
2	CKT-5520K	Black P.E.C.K. Knife
2	CKT-6611N	14K Mt. Shasta Combination Edge Knife
2	CKT-6612N	14K Mt. Rainier Combination Edge Knife
3	CKT-6914	Cascade Knife
1	CKT-M1-13K	Lightfoot M1 Knife
2	CKT-M16-12Z	Carson M16 Tanto Zytel - Combo Knife
2	CKT-M16-13Z	Carson M16 Spear Zytel - Combo Knife
1	CKT-M16-14LE	M16 Law Enforcement Knife

CKT-2232

Fixed Falcon Razor Edge Knife



- Affordable knife with a comfortable grip, wide blade and excellent balance.
- Perfect toolbox and workshop utility knife. • Full tang blade of AUS 6M stainless steel in a satin finish. • Injection molded black Zytel® scales are textured for grip and resists oils and solvents. • Handle shape is thinnest at the balance point for comfortable finger choil and has a thumb ramp for maneuverability. • Hole at pommel allows attachment of lanyard, if desired.
- Blade shape is a modified drop point with a razor-sharp cutting edge. • Overall length: 6". • Blade cutting edge: 2.12", Thickness: .10". • Weight: 1.9 oz.

CKT-4112

Michael Walker BladeLOCK™2 Combined Edge Knife



- Strong folding knife with blade that locks when open, and locks when closed. • Features a satin finish Walker Drop Point blade of AUS 6M stainless steel for precision cutting. • Light and compact, the open design stainless steel frame has a contrasting bead blast finish. Black injection molded Zytel® is used for the back spacer and patterned scales.
- Deep finger notch and prominent thumb ramp on handle. • Offers the combined razor-sharp and Triple-Point® serrated cutting edge. • Blade overall length: 3.0"; cutting edge: 2.75"; thickness: .14". • Closed knife length: 4.0". • Weight 3.8 oz.

CKT-5202L

Rollock™ Razor-Sharp Edge Knife



- Great little folding knife that doesn't fold - it slides! • Translucent scales reveal the action, while an engine turned pattern create an ever-changing light show. • Mirror polished frame of stainless steel and a blade of AUS 6M stainless steel. • The drop point blade is taper ground and mirror polished.
- Clip is also mirror polished, which can be clipped on pocket or belt. • One hand opening is as simple as pressing at the base of the blade and sliding the blade open. To close, press the blade lock, let the blade slide back and pull back until it locks closed. • Blade overall length: 2.25"; Cutting edge: 2.25"; thickness: .09". • Handle closed length: 3.5"; handle color: clear. • Weight: 2.3 oz.

CKT-5212K

Rollock™ Combined Edge Knife



- Great little folding knife that doesn't fold - it slides! • Translucent scales reveal the action, while an engine turned pattern create an ever-changing light show. • Mirror polished frame of stainless steel and a blade of AUS 6M stainless steel. • The drop point combined razor-sharp and Triple-Point™ serrated cutting edge blade is taper ground and mirror polished. • Clip is also mirror polished, which can be clipped on pocket or belt. • One hand opening is as simple as pressing at the base of the blade and sliding the blade open. To close, press the blade lock, let the blade slide back and pull back until it locks closed. • Blade overall length: 2.25"; Cutting edge: 2.25"; thickness: .09". • Handle closed length: 3.5"; handle color: black. • Weight: 2.3 oz.

CKT-5510K

K.I.S.S. IN THE DARK Knife



- **Keep It Super Simple** knife in Teflon® black plating, which is less reflective and creates a protective barrier against corrosion. • Frame Lock™ design allows the blade lock to serve as part of the frame as well as the handle. • Two piece blade and frame construction of AUS 6M stainless steel. • Blade shape is Tanto-inspired - chisel-point grind on the front and flat on the backside. • Combined razor-sharp and Triple-Point™ serrated cutting edge. • Blade Length: 2.25"; Blade Cutting Edge: 2.25"; Blade Thickness: 0.12". • Handle Closed Length: 3.5". • Weight: 2.2 oz.

CKT-5520K

P.E.C.K. IN THE DARK Knife



- **Precision Engineered Compact Knife** in Teflon® black plating, which is less reflective and creates a protective barrier against corrosion. • Grooved thumb stud and Teflon® blade bearings make one-hand opening and closing smooth and easy. • Two piece blade and frame construction of AUS 6M stainless steel. • Razor-sharp cutting edge. • Also serves as a stainless steel pocket clip or money clip. • Blade Length: 1.88"; Blade Cutting Edge: 1.63"; Blade Thickness: 0.10". • Handle Closed Length: 2.63". • Weight: 0.9 oz.

14K Summit Series Folding Knives

- All metal strong design; engineered for rugged use and peak performance.
- InterFrame locking liner construction in an easily cleaned open build, with nickel chrome plated zinc alloy scales in a "skeleton" design - reduces weight without sacrificing strength.
- Dual stainless steel liners.
- Handles are designed with an extended guard, generous size and bead blast finish.
- Friction grooves at the lock and on the blade spine improve grip in wet and icy conditions.
- High-carbon, AUS 6M stainless steel blades in modified drop point and bead blast finish.
- Double grooved ambidextrous thumb studs one handed opening and closing.
- All fasteners are Torx®.
- Convenient stainless steel clothing/gear clip is Teflon® plated and easily removable, attached with three Torx® fasteners.



CKT-6602N

Long's Peak Folding Knife

- Razor sharp cutting edge.
- AUS 6M stainless steel.
- Blade Length: 2.94".
- Cutting edge: 2.81".
- Blade thickness: .10".
- Overall Length: 4" closed.
- Weight: 4.1 oz.



CKT-6611N

Mt. Shasta Folding Knife

- Combined Razor-Sharp and Triple-Point™ serrated cutting edge.
- AUS 6M stainless steel.
- Blade Length: 2.50".
- Cutting edge: 2.19".
- Blade thickness: .10".
- Overall Length: 3.31" closed.
- Weight: 2.7 oz.



CKT-6612N

Mt. Rainer Folding Knife

- Combined Razor-Sharp and Triple-Point™ serrated cutting edge.
- AUS 6M stainless steel.
- Blade Length: 2.94".
- Cutting edge: 2.81".
- Blade thickness: .10".
- Overall Length: 4.00" closed.
- Weight: 4.1 oz.



CKT-6613N

Denali Folding Knife

- Combined Razor-Sharp and Triple-Point™ serrated cutting edge.
- AUS 6M stainless steel.
- Blade Length: 3.5".
- Cutting edge: 3.38".
- Blade thickness: .12".
- Overall Length: 4.75" closed.
- Weight: 6.4 oz.

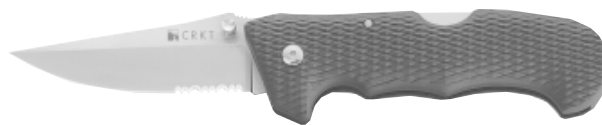


WARNING!

Wear safety goggles when using cutting tools. Wear safety gloves to protect hands against sharp edges. Read safety/operating instructions thoroughly before using tools.

CKT-6914

Cascade Knife



- High quality affordable lockback knife.
- Blade is a modified clip point shape, hollow ground from AUS 6M stainless steel with a bead blast finish.
- Comes with a combined Razor-sharp and Triple-Point™ serrated cutting edge.
- Twin-Fused™ handle technology using a rigid, injection molded high-impact polycarbonate frame with a soft, diamond pattern injection molded Kraton® grip.
- Deep finger choil with guard and pronounced butt pommel and blade thumb ramp with friction grooves.
- Ambidextrous knife.
- Overall blade length: 3.50".
- Blade cutting edge: 3.50".
- Blade thickness: .13".
- Handle length: 5.12" closed.
- Weight 4.7 oz.

CKT-M1-13K

Lightfoot M1 Folding Knife



- Unique blade grind, asymmetrical contoured frame, deeply textured scales and "Mako Flipper" blade guard.
- Refined Tanto shape blade with a custom hollow grind, slight belly and recurve, and a hint of a drop point.
- Blade is premium AUS 8 stainless steel with black titanium nitride non-reflective coating.
- Combined razor-sharp and Triple-Point™ serrated cutting edge.
- Friction grooves on the thumb ramp and Mako Flipper.
- InterFrame build with dual black stainless steel lines, one locking, and custom injection molded contoured black Zytel scales textured with a hexagonal pattern.
- Overall blade length: 3.12".
- Blade cutting edge: 3.25".
- Blade thickness: .13".
- Handle length: 4.37" closed.
- Weight 5.7 oz.

Carson M16 Zytel® Knives!

- Combined Razor-Sharp and Triple-Point™ serrated cutting edge
- Handles consist of textured Zytel® scales over a stainless steel liner InterFrame.
- Handle features offset Torx® fasteners.
- Blades of AUS 6M high carbon stainless steel.
- Feature the Carson flipper to aid in opening the blades and act as a positive blade guard.
- Teflon® bearings and removable Teflon® plated stainless steel clothing/gear clip.

CKT-M16-12Z

Carson M16 Zytel® Knife



- Dual grind Tanto-style blade.
- Overall Blade Length: 3.13"
- Blade Cutting Edge: 3.06"
- Blade Thickness: 0.10"
- Handle Closed Length: 4.25"
- Weight: 3.7 oz.

CKT-M16-13Z

Carson M16 Zytel® Knife



- Slimmer desing with spear point blade.
- Overall Blade Length: 3.56"
- Blade Cutting Edge: 3.38"
- Blade Thickness: 0.10"
- Handle Closed Length: 4.63"
- Weight: 3.7 oz.

CKT-M16-14LE**M16® Law Enforcement Knife**

- Full-size working knife. • Hard anodized aluminum Law Enforcement Blue with black titanium nitride coated blade. • Stainless steel locking liners with friction grooves are black Teflon® plated. • Feature AUS 8 stainless steel blades. • Combined razor-sharp and Triple-Point™ serrated edges. • Feature the "Carson Flipper" extension to the blade, which aids opening and acts as an additional blade guard. • Overall blade length: 3.94". • Blade cutting edge: 3.88". • Blade thickness: .14". • Handle length: 5.31" closed. • Weight 4.9 oz.

Old Timer® Pocket Knives

- Super sharp hold a great edge and are easy to sharpen. • Indestructible Delrin® handles - saw cut pattern for safe, comfortable use. • Solid nickel silver bolsters. • 100% hand-inspected. • Lifetime warranty. • Individually gift boxed. • Made in the U.S.A.

PK-120T**Old Timer® Pocket Knife**

- "Pal" model. • High carbon steel blade. • Size closed: 2-7/8".

**PK-340T****Old Timer® Pocket Knife**

- "Middleman" model. • Schrade+Stainless steel® blades. • Clip, sheepfoot and spey blades. • Size closed: 3-5/16".

**PK-1040T****Old Timer® Pocket Knife**

- "Minuteman" model. • High carbon steel blade. • Size closed: 2-3/4".

**PK-1520T****Old Timer® Pocket Knife**

- "Sharpfinger" model. • 7-1/4" overall length; 3-1/2" high carbon steel skinning blade. • Unbreakable Delrin® sawcut handle. • Comes gift boxed with a genuine leather sheath.

**Midnight Avatar Knives****PK-AV22****Midnight Avatar 2 Blade Knife**

- Length: 3-5/8".

**PK-AV77****Midnight Avatar Knife**

- Length: 4". • Stainless pocket clip.

BOTH KNIVES FEATURE:

- High Tech Design. • Easy one-hand opening stainless steel blades with "teardrop" piercing. • Co-molded handle constructed with durable yet lightweight aluminum. • Midnight black thermoplastic rubber (TPR) gripping stripes and black blades. • Locking blades. • Schrade + Stainless Steel®.

PK-ST1N-CP**Tough™ Tool**

- 100% stainless steel. • 21 Implements/Functions: needle nose plier, regular plier, vise, wire cutter, cap lifter, can opener, locking Phillips® head screwdriver, scribe, awl, leather bore, locking dual edge knife blade, metal file, wood file, measuring gauge, hook disgorger, locking heavy duty field saw, scraping blade, wire stripper, locking large flat head screwdriver, fine flat head screwdriver, and lanyard attachment. • Non-pinch grip, heavy duty construction. • Exclusive locking system. • Comes with a nylon sheath. • Length: 7" open; 4-3/4" closed.

**PK-ST6H****Tough Grip™ Multi-Tool**

- Features: Needlenose Vise-Grip® Locking Pliers, Super Sharp Knife Blade (locking), Phillips® Screwdriver (locking), Cap Lifter (locking), Large Flathead Screwdriver (locking), Saw (locking), Wire Stripper (locking), and Small Precision Screwdriver. • Stainless locking implements. • Length: 6-3/4" closed.

**SMW-CC****Classic Knife and Light Combo**

- Dual lock-back knife with serrated blade. • Features two durable stainless steel locking blades: razor sharp straight edge for general use and serrated blade for difficult cutting jobs. • Thumb holes for easy opening. • 2AA Flashlight features a bright krypton bulb, adjustable beam, and one-hand push-button switch. Made of aerospace anodized aluminum and is weatherproof and corrosion resistant. • Belt clip for knife and 2 AA batteries for flashlight included.



Edgemate™ Stone Sharpening Systems

- Includes knife clamp/angle guide, honing stones, scientifically-formulated honing oil, and instructions in a custom carrying case.
- Knife clamp/angle guide has six sharpening angles for all knives including serrated edges, and recessed finger screw adjustments.
- Premium grade abrasives on 5" x 3/4" wide hones insure fast and efficient cutting of all steels, including stainless steels.
- Sharpens all kitchen, sport, and utility cutlery.



PART NO.	DESCRIPTION
GT-10003	3 Stone Sharpening System
GT-10005	5 Stone Sharpening System

GT-11022 Honing Oil, 2 oz. bottle

Clamp/Honing Guide and Mount

GT-17002

Knife Clamp/Honing Guide

- Large clamp provides easy grip, has six angles for different sharpening applications and finger screw adjustment, glass-filled polycarbonate.



GT-12001

Easy-Grip™ Clamp Mount

- Holds knife clamp/angle guide to maximize ease of sharpening.
- Useful when sharpening large knives or many knives in succession.
- Can be permanently mounted to any work surface with screws or C-clamped for portability.

Accessory Hones

- Perfect for upgrading sharpening system or replacing used stones.
- Can be used with all GATCO sharpening systems.
- All hones contain the patent pending adjustable sliding guide rod and finger protection rails.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
GT-15001	Medium Serrated Knife Blade Hone	GT-15003	Coarse Hone
GT-15002	Extra Coarse Hone	GT-15004	Medium Hone
		GT-15005	Fine Hone

GT-60016

Tri-Seps™ Serration and Knife Sharpener

- Triangular shaped, portable ceramic sharpener has built-in angle guide to restore a razor-sharp edge to serrations, plain edges, entrenching tools, scissors, etc.
- Sharpening groove for pointed instruments, fish hooks, etc.
- Two radius sizes for both large and small serrations.
- Made from premium grade 96% alumina ceramic.
- Includes military-spec bead chain and clasp.
- Overall length: 4.50".



AR-S12800 File Set

- Contains six files with wooden handles, approximately 7" in length, in a plastic pouch.



ZZ-F6S

6 Piece File Set

- Set consists of one each of the following:

PART NO.	DESCRIPTION
HL-73-14300	6" Mill File
HL-73-14550	8" Mill File
HL-73-14950	12" Mill File
HL-73-32100	10" Half-Round File
HL-73-39600	6" Round File
HL-73-39850	8" Round File
KB-K11	Kit Bag



Single Cut Mill Files



- For sharpening saws, shears, lawn mowers, axes and for draw filing, lathe work and general shop use.
- Tapers slightly in width.
- Bastard cut-coarse teeth for rapid stock removal.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
HL-73-14300	6" x 19/32" x 7/64"	HL-73-14750	10" x 31/32" x 11/64"
HL-73-14550	8" x 25/32" x 9/64"	HL-73-14950	12" x 1-5/32" x 7/32"

Double Cut Round Files



- Designed for enlarging circular holes or rounded grooves.
- Tapers toward the point.
- Bastard cut-coarse teeth for rapid stock removal.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
HL-73-39600	6" x 7/32"	HL-73-40050	10" x 3/8"
HL-73-39850	8" x 5/16"	HL-73-40250	12" x 1/2"

Double Cut Half-Round Files



- For filing out concave surfaces and crevices, and rounding out holes.
- Spiral cut enables removal of metal and leaves smooth finish.
- Bastard cut-coarse teeth for rapid stock removal.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
HL-73-31900	8" x 3/4" x 7/32"	HL-73-32300	12" x 1-1/8" x 11/32"
HL-73-32100	10" x 15/16" x 9/32"		

HL-73-51650

Double Cut Three Square File



- Triangular file has 60° angles between sides and taper towards the point.
- For cleaning out corners, filing internal angles and filing annealed cutters and taps.
- Bastard cut-coarse teeth for rapid stock removal.
- Dimensions: 6" x 15/32".

Tite Grip File Handles



- Birch wood.
- Solid steel insert cuts dual threads on tang to securely hold file.

PART NO.	USE FOR	PART NO.	USE FOR
SQ-TG3	8" Files	SQ-TG20	6" Files
SQ-TG4	10" Files	SQ-TG50	12" Files

SQ-L10

File Card

- Sharp steel bristles dig and remove filings from grooves of files to restore clean cutting capacity.
- Length: 8".



SH-77640

Knee Pads (pr.)

- Comfortable double elastic straps with Velcro® fasteners.
- Smooth, hard plastic cups for easy knee swivel.
- Tough, super light outer fabric.
- Thick neoprene rubber interior for maximum comfort.



MX-MKP-05600

Pro Knee Pad

- Two-stage pad design for impact reduction.
- Additional lower thigh protection panel with wide-band elastic hook and loop closure.
- Rugged Cordura outer shell construction over mid-density foam padding.
- Abrasion-resistant full coverage Kevlar® knee panel with extra side elastic hook and loop closure for non-binding fit.



JS-301691

Magnetic Fender Cover

- White Cornwell logo screen printed on a black background.
- Heavy duty foam and vinyl construction with magnetic tool and cover holding sections.
- Approximate size: 32"W x 26"H.



NS-136TH

Protective Fender Cover

- Heavy duty foam and vinyl construction fender cover with tool holding sections.
- Natural sponge backing for protection and gripping action.
- Dimensions: 22-1/2" x 36".



CR-MTLV-6

V-Drop™ Creeper

- Designed to maximize strength as well as comfort.
- 3/4" square tubular steel frame.
- Powder coat epoxy is used on framework to prevent rusting.
- Fully covered upholstered leatherette pad for maximum comfort.
- Six 2-1/2" casters with extended wheel covers.
- Frame incorporates four supporting cross rails.
- Dimensions: 4-1/2"H x 18"W x 39"L.

CR-MTB-25 Caster Only



CR-MTLV-ADJ

Six Wheel Adjustable Headrest Creeper

- Six position adjustable headrest.
- Either hand adjustment.
- 3/4" steel tubular V-Drop™ frame specifically made for broad shoulders.
- Powder coated finish.
- Six 2-1/2" wheels with extended wheel covers.
- Fully covered leatherette pad.
- Dimensions: 4-1/2"H x 18"W x 39"L.
- Weight: 19 lbs.

CR-MTB-25 Caster Only



CR-MTLV-MON

Monster V-Drop™ Creeper

- Fully padded leatherette.
- 1" steel tubular V-Drop™ frame with powder coat finish.
- Specifically made for broad shoulders.
- Four 4-inch wheels with covers.
- Frame tested at 2,000 lbs.!
- Dimensions: 6-1/2"H x 21"W x 39"L.

CR-MTLV-MON-4 Replacement Roller



CR-GH-BLACK

Groundhog Low Profile Creeper

- One piece integrated framework creeper with ergonomic design.
- Six in-line, state-of-the-art 2-1/2" rollers.
- Body is extra wide and long.
- Wheels are positioned so that long hair and loose clothing do NOT get caught!
- Two hand holes for easy carrying.
- Two tool pockets.
- Padded headrest.
- 1" ground clearance.
- 480 lb. capacity.
- 24" wide x 42" long.
- Weight: 14 lbs.; Shipping weight: 16 lbs.

CR-25GH Replacement 2" In-Line Roller



Common
Service Tools

CR-BONE

"The Bone™" Creeper

- Injection molded from high strength gasoline and oil proof plastic.
- Molding technique creates hollow cavities within the support ribs for reduced weight and superior strength.
- Ground clearance is only 3/4".
- 5" diameter non-marking wheels, rated @ 130 lbs. each, have ball bearing swivels.
- Wheels are mounted outboard in raised pods which makes it impossible to tip the creeper when getting on/off or going sideways.
- 46" length x 25" wide.



Low Profile Plastic Creepers

- Body-fitting design for comfort.
- Six 2" pop-in style rollers.
- Built-in threaded inserts accommodate optional tool tray and/or light holder.
- Resistant to solvents, greases and fuels.
- Dimensions: 38" long x 17-1/2" wide x 4" high, 7/8" floor clearance.



PART NO.	COLOR	PART NO.	COLOR
LS-92102	Red	LS-94102	Blue

LS-92132 Replacement Roller

CR-CCS

Cornwell Convertible Creeper Seat

- Finger release converts creeper to a seat with one hand. • Positive lock when in the seat position. • 3/4" steel tubular frame with a powder coat finish. • Six 2-1/2" oil resistant wheels. • Fully padded and offers great lower back support. • Seat height: 17". • Seat pad measures: 10-1/2" x 11". Back support measures: 9" x 11". • Overall dimensions: 39"L x 17"W x 7"D. • Weight: 24 lbs.

CR-MTB-25 Caster Only



CR-HRS

Deluxe High Rise Creeper Seat

- Wide seat bottom and higher seat provides comfort and back support for sitting extended periods of time. • Large roller "footprint" for stability. • 3" common swivel casters. • Powder coat epoxy framework. • Replaceable seat. • Comes fully assembled and includes a magnetic strip in tray for holding small metal parts. • Seat Height: 16-1/4". • Seat Backrest Height: 23-3/4". • Seat Width: 18-1/4". • Seat Length: 16".

CR-HRS-I Caster insert

CR-HRS-202 Caster only



CR-HRS2

Economy High Rise Creeper Seat

- Wide seat bottom and higher seat provides comfort and back support for sitting extended periods of time. • Large roller "footprint" for stability. • 3" common swivel casters. • Powder coat epoxy framework. • Replaceable seat. • Comes fully assembled and includes a magnetic strip in tray for holding small metal parts. • Seat Height: 16". • Seat Width: 9". • Seat Length: 14". • Seat Pan: 15" x 15".

CR-HRS-I Caster insert

CR-HRS-202 Caster only



CR-HDTS

Adjustable Heavy Duty Creeper Seat

- Extremely comfortable, solid feeling heavy duty creeper seat with tractor style bucket seat. • Provides stability and ease of motion with large capacity tool / parts storage area / caster base. • Seat height adjustable from a low 17" to a high of 21-3/4" by way of an easy to operate air cylinder. • 5 Casters for easy, solid mobility - 2 locking, 3 non-locking.



WARNING!

Read safety/operating instructions thoroughly before using tools.

CR-HRAS

High Rise Adjustable Seat

- Adjustable over 5". • Lifetime guarantee on the cylinder. • Finger tip adjust mechanism. • Improved overall seating area. • Seat swivels 360 degrees. • Replaceable cover. • 3" casters. • Height: 16-1/2" to 21-1/2" Depth: 16-1/2" Width: 18-1/4"

CR-HRS-I Caster insert

CR-HRS-202 Caster only



CR-SPP

Creeper Seat

- Heavy duty 1" steel square tubing frame. • Fully padded seat; 3 section tool tray. • Powder coat finish. • Four 2" oil resistant wheels. • Shipped fully assembled. • 14"H x 17-1/2"D x 17-1/2"W.

CR-SPP-25-BLACK 2-1/2" Caster only



SM-20350

Pro Step Adjustable Work Stand

- Heavy duty 32" x 16" platform with 1000 lb. capacity. • Foam bumpers protect vehicle finish. • Spring loaded retractable wheels - you can push it with your foot. • Extra-wide (23") base rails for stability. • Height adjustable from 6-1/2" to 22-1/2". • Heavy duty construction. • Weight: 45 lbs.



CHB-50001

Electronic Digital Caliper

- Large display, 6" caliper features .26" numbers and a scratch resistant lens. • Hold button and front mounted switches. • Zero position memory with auto on - just pick up and start measuring - no need to re-zero! • Easy reading, gearless (chip resistant) construction, inch and mm readings. • Hardened measurement surface, readable scale on the bar, lockable jaws, wood storage case, and spare battery assure long and productive life. Manual also included.



CHB-50004

6" Dial Caliper with Thumb Roller and Depth Bar

- For fast and easy measurement of outside, inside, step and depth dimensions to .001". • Features hardened measurement surfaces, covered screw-on premium rack gears, and rugged indicators. • Thumb roller allows for smooth jaw movement; Jaw locking screws preserve readings and settings. • Packaged in a wooden storage case.



CHB-50600

Digital Brake Drum Caliper



- Range: 0-17.25" (0-431.25mm) • Reach: 4.25" • Resolutions: .001"/.02mm • Inch/metric selectable readings • Caliper locking thumbscrew prevents caliper jaws from opening or closing. • Includes case and operating instructions. • Operates on one 1.55V silver oxide battery (included), Type 357 or SR44.

CE-6506

Four Inch Slide Rule Caliper



- Pocket sized caliper of heavy gauge solid brass. • Range: 0-4" (0-100mm); graduations (32nds and 1mm) for inside and outside dimensions. • Furnished in polyvinyl case.

CE-6425

Electronic Digital Caliper



- 0-6" (0-150mm) Range. • .0005" (.01mm) Graduations. • Direct Inch-Metric Conversions. • Four measurements - inside, outside, depth and step. • Hardened stainless steel. • Precision-ground and lapped measuring surfaces. • Easy to read LCD display; one lithium battery 3V power supply (CR2032 type). • Assembled in the U.S.A. with Swiss Electronics.

CE-6530

Plastic Electronic Digital Caliper



- Glass fiber reinforced super polyamide. • Easy to read LCD display. • Four measurements - inside, outside, depth and step. • Direct inch/metric conversions. • Thumb roller. • Range: 0-6"(0-150mm); Graduations: .001"(.1mm).

CE-6508

Plastic Dial Caliper



- 0-6" Range. • .001" Graduations. • Range per revolution: .100" • Three measurements - inside, outside, and depth. • Reinforced nylon construction. • Thumb roller and adjustable bezel.

CE-6422

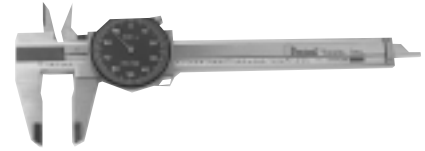
Dial Caliper



- Four measurements: inside, outside, depth and step. • Stainless steel, stress relieved. • Measuring surfaces are precision-ground and lapped. • Adjustable dial indicator with thumb wheel fine adjustment has fine line indicating hand. • Satin chrome finish. • Range: 0-6"; Graduations: .001". • Range per revolution: .200".

CE-6476

Dial Caliper



- Stainless steel, stress relieved. • Pocket sized with adjustable dial. • Four measurements - inside, outside, depth and step. • Includes storage pouch. • Range: 0-4"; Graduations: .001"

CE-6628

Dual Scale Dial Caliper



- Dial indicator has fine indicating hands; thumb wheel. • Four measurements - inside, outside, depth and step. • Measuring surfaces are precision ground and lapped. • Satin chrome finish. • Stainless steel, stress relieved. • Range: 0-6" (0-150mm). • Graduations: .001" (.02mm). • Range per Revolution: .100" (2mm).

CHB-50054

0-1" Digital Micrometer



- Reads to one-thousandth of an inch. • Features carbide tips, a thimble ratchet, a thimble lock, and smooth movement. • Includes vernier scale for measurements to .0001" and a spanner wrench for calibration.

Micrometers



- Extra hard measuring surfaces - anvil and one piece spindle made of finest quality tool steel. • Parallel and square faces lapped on special machinery. • I-Beam frame, powder coated. • Simplified zero adjustment - reset with hex key provided. • Easy read thousandths graduations - machine spaced. • Friction stop for uniform pressure under all measuring conditions. • Spindle lock holds spindle securely for transferring measurements.

PART NO.	RANGE	GRADUATIONS
CE-6009	0" - 1"	.001 SAE
CE-6031	1" - 2"	.001 SAE
CE-6051	2" - 3"	.001 SAE
CE-6071	3" - 4"	.001 SAE
CE-6026	0 - 25MM	.01MM

CE-6201

Disc Brake Micrometer



- Designed for modern rotors. • Measure both thickness, thickness variation and score depths across entire braking surface. • Pointed anvils. • Range: .300 - 1.300"; Graduations: .001"; Frame Depth: 1-3/8".

CE-6230

Inside Micrometer - Rod Type



- Check connecting rods, camshaft bores and main bearing bores. • All measuring extensions and handle included; comes in a fitted case. • Range: 2 to 8"; Graduations: .001".

CE-6151

Outside Micrometer Set, 0-4"

- Set includes standards plus a hex key for making adjustments.
- Four micrometers with adjacent ranges of: 0-1", 1-2", 2-3", and 3-4".
- Graduations: .001".



CE-6410

Long Range Indicator Test Set

- For precise direct measurements.
- Includes large 2-1/4" diameter Dial Indicator which is continuous with revolution counter; Rotate the bezel for setting at any point.
- Powerful compact magnetic base with post and indicator rod.
- Contact, rod connector and indicator holding clamp.
- Furnished in fitted case.
- Range: 1.0"; Graduations: .001"; Reading: 0-100.



CE-6400

Universal Dial Indicator Test Set

- Make comparative tests where precision counts.
- Jeweled bearing indicator with 1-1/2" diameter bezel and rear mounted plunger; Two extra contacts (3/16" and 5/16" dia.); Indicator holding rod (2 sections); Hole attachment for checking bores (.125" range); Indicator C-clamp mounting; Universal rod connector/ tool post holder.
- Furnished in fitted case.
- Range: .200"; Graduations: .001"; Reading: 0-100.



CE-6450

Disc Rotor/Ball Joint Gage Set

- Check ball joint wear, brake rotor run-out, gear backlash, valve guide wear and camshaft wear.
- Special locking pliers clamp securely to any convenient object.
- Eliminates vibration problems and false readings by mounting directly on spindle.
- Range: 1"; Graduations: .001"; Reading: 0-100.



CE-4345

Dial Indicator

- Range: 0 to 1.0"; Graduations: .001"; Reading: 0-100.
- Diameter: 2-1/4".
- Continuous forward and reverse reading with revolution counter, rack and pinion construction, lug back, 3/8" diameter shank.



CHB-50500

Disc Rotor Gauge

- Digital Disc Rotor/Ball Joint Caliper that measures accurately & quickly.
- Read to .0005" with .001" accuracy!
- Inch or metric readings.
- Hardened tips (with one pointed) allow for measuring of scored rotors.
- 0-5" Range.
- 3.25" Reach for all rotor surfaces.
- 3.75" Reach.
- Includes storage case, spare battery, and instructions.



CE-6462

Cylinder Bore Gage

- Measure cylinder wear without removing pistons.
- Measure bores up to 8" deep.
- Check cylinder diameter when used with a micrometer.
- Contact extensions included.
- Range: 2.6 - 7"; Graduations: .001"; Reading: 0-50-0.



CE-6554

6 Piece Telescoping Gage Set

- Self centering, heavy duty.
- Checks slots, grooves, recesses, cylinders.
- Handles are up to 5-1/2" long.
- Satin chrome finish.
- Both contacts release or lock by turning knob at end of handle.
- Read measurement with micrometer.
- Set consists of the following gages (ranges): 4349 (5/16" - 1/2"), 4350 (1/2" - 3/4"), 4351 (3/4" - 1-1/4"), 4352 (1-1/4" - 2-1/8"), 4353 (2-1/8" - 3-1/2"), and 4354 (3-1/2" - 6").



Precision Straight Edges



- Use with feeler gauges to measure head, block, flywheel straightness (warpage) for every application from small engines up to heavy duty diesel engines.
- High quality heat treated steel.
- 1/4" thick for great stability.
- Precision ground.
- Tough epoxy coating.
- Convenient hang-up hole.

PART NO.	LENGTH	PART NO.	LENGTH
CE-6429	24"	CE-6475	18"

6" Flexible Pocket Rules



- Top quality stainless steel, precision ground and tempered, clear etched graduations.
- Spring pocket clip.

PART NO.	GRADUATIONS	PART NO.	GRADUATIONS
CE-6514	32nds & 64ths	CE-6515	64ths & 1mm



WARNING!

Read operating instructions on tools and equipment before use.

CWI-QR25114

25 Ft. x 1-1/4" Quick Read Tape Measure



- Extra sturdy 25' tape measure with 1-1/4" blade.
- Standout length of 9 feet.
- Super wide blade has horizontal and vertical markings every inch.
- Convenient fractional readout every 1/8".
- Durable casing stands up to rough treatment.
- Easy to find, bright color.

SE-65794

Thin Locking Tape



- Thin chrome-plated case with 2" wide base slips easily in pocket.
- Easy-to-read black markings on blade, in eighths and sixteenths with thirty-seconds on first six inches.
- Non-moveable end hook.
- Blade Width: 1/4".
- Blade Length: 10 ft.

Tru-Lok® Measuring Tapes



- TOUGH TIP® stainless plate blade protectors reinforce tape blade ends, reducing blade edge breakage by up to 85%. (Not available on 1/2" or 1/4" tapes.)
- Positive blade control with cam-activated lock - when pressed into the locking position, blade is held exactly where positioned without pulling back into case.
- Rust resistant, yellow lacquered blade is graduated in red and black.
- Self-adjusting end hooks slide to compensate for its own thickness.
- Impact resistant chrome case is guaranteed for life.
- Complete with handy metal belt clip.

PART NUMBER	BLADE	UNIT OF MEASURE
1/2" BLADE WIDTH		
SE-65418	12'	Feet, inches, 1/16"
SE-65782	4M/12'	Millimeter graduations, centimeter numbering to end on edge, feet, inches 1/16" other edge
3/4" BLADE WIDTH		
SE-65758	5M/16'	Millimeter graduations, centimeter numbering to end on edge, feet, inches 1/16" other edge
1" BLADE WIDTH		
SE-65366	25'	Feet, inches, 1/16"

REPLACEMENT TAPE BLADES:

SE-65436	1/2" x 12'/SE-65418
SE-65740	1/2" x 12'/SE-65782
SE-65704	3/4" x 16'/SE-65758
SE-65435	1" x 25'/SE-65366



WARNING!

Read operating instructions on tools and equipment before use.

VA-21729

40 Piece Super Mechanic's Set



- No. 4 to 1/2" taps and hexagon dies in molded plastic case.
- Includes the following: 17 taps and 17 (1") hexagon dies, Tap Wrench (VA-21901), Die Stock (VA-21922), T-Handle Tap Wrenches, (VA-21906, VA-21908), Thread Gauge (VA-21939), Screwdriver (No. 5)

THREAD TYPE	SIZE AND THREADS PER INCH		
NC	4-40	6-32	8-32
	10-24	12-24	1/4-20
	5/16-18	3/8-16	7/16-14
	1/2-13		
NF	10-32	1/4-28	5/16-24
	3/8-24	7/16-20	1/2-20
NPT	1/8-27		

VA-21749

40 Piece Metric Super Mechanic's Set



- 3MM to 12MM taps and hexagon dies in molded plastic case.
- Includes the following: 17 taps and 17 (1") hexagon dies Tap Wrench (VA-21901) Die Stock (VA-21922) T-Handle Tap Wrenches (VA-21906, VA-21908) Metric Thread Gauge (VA-21938) Screwdriver (No. 5)

SIZE AND PITCH CHART		
3MM-.50	6MM-1.00	10MM-1.25
3MM-.60	7MM-1.00	10MM-1.50
4MM-.70	8MM-1.25	11MM-1.50
4MM-.75	9MM-1.00	12MM-1.50
5MM-.80	9MM-1.25	12MM-1.75
5MM-.90		

1/8-28 British Standard Pipe

VA-21741

75 Piece Fractional and Metric Master Set



- No. 4 to 1/2" and 3MM to 12MM taps and hexagon dies in molded plastic case.
- Includes the following: 34 taps and 34 (1") hexagon dies; Tap Wrench (VA-21901), Die Stock (VA-21922), T-Handle Tap Wrenches (VA-21906, VA-21907), Metric Thread Gauge (VA-21938), Thread Gauge (VA-21939), Screwdriver (No. 50802)

THREAD TYPE	SIZE AND THREADS PER INCH			THREAD TYPE	SIZE AND THREADS PER INCH	
NC	4-40	6-32	8-32	METRIC	3mm-.50	3mm-.60
	10-24	12-24	1/4-20		4mm-.70	4mm-.75
	5/16-18	3/8-16	7/16-14		5mm-.80	5mm-.90
	1/2-13				6mm-1.00	7mm-1.00
NF	10-32	1/4-28	5/16-24		8mm-1.25	9mm-1.00
	3/8-24	7/16-20	1/2-20		9mm-1.25	10mm-1.25
NPT	1/8-27				10mm-1.50	11mm-1.50
					12mm-1.50	12mm-1.75

1/8-28 British Standard Pipe

Taps

- For cutting internal threads.
- Produced to exacting specifications.
- Made of carbon alloy tool steel; rust and tarnish resistant.
- Cut cleaner, more accurate threads and last longer.
- Right-hand threaded taps in plug-style - 3 to 5 threads chamfered - generally used when tapping to bottom of hole is not critical.
- Drill size permanently marked on each tap.



PART NUMBER	TAP SIZE	THREADS PER INCH	DRILL SIZE
VA-20010	6	32NC	36
VA-20011	8	32NC	29
VA-20012	10	24NC	25
VA-20013	10	32NF	21
VA-20014	12	24NC	16
VA-20018	1/4	20NC	7
VA-20019	1/4	28NF	3
VA-20020	5/16	18NC	17/64
VA-20021	5/16	24NF	17/64
VA-20022	3/8	16NC	5/16
VA-20023	3/8	24NF	21/64
VA-20024	7/16	14NC	3/8
VA-20025	7/16	20NF	25/64
VA-20026	1/2	13NC	27/64
VA-20027	1/2	20NF	29/64
VA-20028	9/16	12NC	31/64
VA-20030	5/8	11NC	17/32
VA-20031	5/8	18NF	37/64
VA-20034	3/4	10NC	21/32
VA-20035	3/4	16NF	11/16
VA-20036	7/8	9NC	49/64
VA-20037	7/8	14NF	13/16
VA-20038	1	8NC	7/8
VA-20039	1	12NF	29/32
VA-20040	1	14NS	15/16

Metric Taps

- For foreign cars, motorcycles and machinery.
- Popular plug-style tap for threading jobs in metric sizes.
- Plug taps made to exacting specifications of tough carbon alloy tool steel.
- Cuts cleanly and accurately when threading to the bottom of the hole is not required.
- Proper drill size permanently marked on tap surface.



PART NO.	TAP SIZE	DRILL SIZE	PART NO.	TAP SIZE	DRILL SIZE
VA-21112	3MM - .50	No. 40	VA-21135	8MM - 1.25	17/64
VA-21113	3MM - .60	No. 39	VA-21138	9MM - 1.00	5/16
VA-21117	4MM - .70	1/8	VA-21139	9MM - 1.25	5/16
VA-21118	4MM - .75	1/8	VA-21141	10MM - 1.25	11/32
VA-21123	5MM - .80	11/64	VA-21142	10MM - 1.50	11/32
VA-21124	5MM - .90	No. 20	VA-21144	11MM - 1.50	3/8
VA-21129	6MM - 1.00	13/64	VA-21147	12MM - 1.50	13/32
VA-21131	7MM - 1.00	15/64	VA-21148	12MM - 1.75	27/64

Metric Spark Plug Taps



- For foreign cars, motorcycles, and machinery.
- Popular plug-style for threading jobs in metric sizes.
- Made of tough carbon alloy tool steel.
- Cuts cleanly and accurately when threading to the bottom of the hole is not required.
- Has proper drill size permanently marked on tap surface.

PART NUMBER	TAP SIZE	DRILL SIZE
VA-21140	10MM-1.00	23/64
VA-21146	12MM-1.25	27/64
VA-21152	14MM-1.25	33/64
VA-21164	18MM-1.50	21/32

Pipe Taps

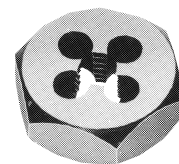


- For pipe fittings.
- Cuts internal threads in pipes and other places where extremely tight fit is required.
- Cuts cleanly and accurately and resists rust and tarnish.
- Proper drill size permanently marked on each tap.

PART NUMBER	TAP SIZE	DRILL SIZE
VA-20351	1/8-27NPT	11/32
VA-20352	1/4-18NPT	7/16
VA-20353	3/8-18NPT	37/64
VA-20354	1/2-14NPT	23/32
VA-20355	3/4-14NPT	59/64
VA-20356	1 - 11-1/2NPT	1-5/32

1" Hexagon Dies

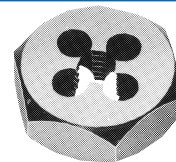
- For cutting external threads.
- Hexagon shape assures use with die stock or ordinary adjustable wrench.
- Precision-made of carbon alloy tool steel.
- Right-hand threads.
- Size and starting side permanently marked on each die.



PART NO.	DIE SIZE	TYPE
VA-20718	1/4-20NC	Fractional
VA-20720	5/16-18NC	Fractional
VA-20721	5/16-24NF	Fractional
VA-20722	3/8-16NC	Fractional
VA-20723	3/8-24NF	Fractional
VA-20724	7/16-14NC	Fractional
VA-20725	7/16-20NF	Fractional
VA-20726	1/2-13NC	Fractional
VA-20727	1/2-20NF	Fractional
VA-20748	1/8-27NPT	Pipe

1" Metric Hexagon Dies

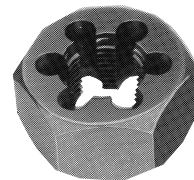
- For foreign cars, motorcycles and machinery.
- Fully heat-treated carbon tool steel.
- Fits standard wrenches and die stocks.
- Size and starting side stamped on die.



PART NUMBER	DIE SIZE	PART NUMBER	DIE SIZE
VA-21212	3MM - .50	VA-21235	8MM - 1.25
VA-21213	3MM - .60	VA-21238	9MM - 1.00
VA-21217	4MM - .70	VA-21239	9MM - 1.25
VA-21218	4MM - .75	VA-21241	10MM - 1.25
VA-21223	5MM - .80	VA-21242	10MM - 1.50
VA-21224	5MM - .90	VA-21244	11MM - 1.50
VA-21229	6MM - 1.00	VA-21247	12MM - 1.50
VA-21231	7MM - 1.00	VA-21248	12MM - 1.75

Large Diameter Fractional Hexagon Dies

- For cutting external threads in large pipes.
- High quality, tough carbon tool steel.
- Size and starting side are permanently marked on each die.

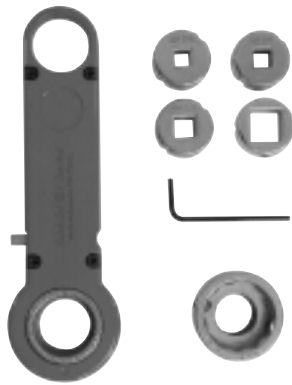


PART NUMBER	DIE SIZE	ACROSS FLAT (IN.)	THICK. (IN.)
VA-20728	9/16-12NC	1-7/16	1/2
VA-20729	9/16-18NF	1-7/16	1/2
VA-20730	5/8-11NC	1-7/16	1/2
VA-20731	5/8-18NF	1-7/16	1/2
VA-20734	3/4-10NC	1-7/16	1/2
VA-20735	3/4-16NF	1-7/16	1/2
VA-20736	7/8-9NC	1-7/8	11/16
VA-20737	7/8-14NF	1-7/8	11/16
VA-20738	1-8NC	1-7/8	11/16
VA-20739	1-12NF	1-7/8	11/16
VA-20740	1-14NS	1-7/8	11/16

IM-DNT-K1

Die Nut and Tap Ratchet Tool Kit

- Helps cut or renew threads in tight places. • Ideal for automotive, plumbing, electrical, refrigeration, air conditioning, industrial, maintenance, aircraft, and marine.
- Bi-directional ratcheting action.
- Holds dies with O.D. of 1". • Accommodates all dies: round, 6, and 12 point. • Allows a turning radius of 6" when using a round, 6, or 12 point 1" O.D. die. • Adapter for hex, double hex die nuts and for the four most popular sizes of taps.
- Kit consists of the following:



PART NO.	DESCRIPTION
IM-DN6-12	Hex/Double Hex Die-Nut Sleeve
IM-DN250	.250" Tap Insert
IM-DN290	.290" Tap Insert
IM-DN335	.335" Tap Insert
IM-DN535	.535" Tap Insert
IM-DN-SS2	Replacement Set Screws (2)
IM-DNT	Die Nut & Tap Ratchet

JA-1853

53 Piece Universal Rethreading Set

- 53-piece professional thread restoring tools designed never to undercut or damage existing threads. • Set includes two rethreading files with plastic handles plus 19 color-coded rethreading taps and 32 color-coded rethreading dies in a red custom plastic storage case. • JA-1 REGULAR THREAD FILE with **JA-12** plastic handle (reverse handle to use other four pitches) has the following eight (8) thread pitches: 11, 12, 13, 14, 16, 18, 20, 24 tpi. • JA-8 METRIC THREAD FILE with **JA-12** plastic handle (reverse handle to use other four pitches) has the following eight (8) thread pitches: 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50, and 3.00mm.



TAPS AND DIES					
NC-USS TAPS (Silver)	NC-USS DIES (Silver)	NF-SAE TAPS (Black)	NF-SAE DIES (Black)		
JA-TC1 1/4"-20	JA-1/4CD 1/4"-20	JA-TF1 1/4"-28	JA-1/4FD 1/4"-28		
JA-TC2 5/16"-18	JA-5/16CD 5/16"-18	JA-TF2 5/16"-24	JA-5/16FD 5/16"-24		
JA-TC3 3/8"-16	JA-3/8CD 3/8"-16	JA-TF3 3/8"-24	JA-3/8FD 3/8"-24		
JA-TC4 7/16"-14	JA-7/16CD 7/16"-14	JA-TF4 7/16"-20	JA-7/16FD 7/16"-20		
JA-TC5 1/2"-13	JA-1/2CD 1/2"-13	JA-TF5 1/2"-20	JA-1/2FD 1/2"-20		
JA-TC6 9/16"-12	JA-9/16CD 9/16"-12	JA-TF6 9/16"-18	JA-9/16FD 9/16"-18		
	JA-5/8CD 5/8"-11		JA-5/8FD 5/8"-18		
	JA-3/4CD 3/4"-10		JA-3/4FD 3/4"-16		
			JA-7520-1853 3/4"-20		
METRIC TAPS (Gold)	METRIC DIES (Gold)				
JA-TM6A 6 x 1.00MM	JA-MM6A 6 x 1.00MM	JA-MM10C 10 x 1.50MM			
JA-TM8B 8 x 1.25MM	JA-MM6B 6 x 1.25MM	JA-MM12B 12 x 1.25MM			
JA-TM10B 10 x 1.25MM	JA-MM7A 7 x 1.00MM	JA-MM12C 12 x 1.50MM			
JA-TM10C 10 x 1.50MM	JA-MM8A 8 x 1.00MM	JA-MM12D 12 x 1.75MM			
JA-TM12B 12 x 1.25MM	JA-MM8B 8 x 1.25MM	JA-MM14B 14 x 1.25MM			
JA-TM12C 12 x 1.50MM	JA-MM8C 8 x 1.50MM	JA-MM14C 14 x 1.50MM			
JA-TM12D 12 x 1.75MM	JA-MM10A 10 x 1.00MM	JA-MM20C 20 x 1.50MM			
	JA-MM10B 10 x 1.25MM				

JA-12 Plastic Handle

8 Piece Rethreader Die Sets

- Will not undercut. • Use regular wrenches. • Each rethreader die marked on plastic holder. • Sets consists of the following:



JA-C8 SET (NC-USS)	JA-F8 SET (NF-SAE)	SIZE
JA-1/4CD	JA-1/4FD	1/4"
JA-5/16CD	JA-5/16FD	5/16"
JA-3/8CD	JA-3/8FD	3/8"
JA-7/16CD	JA-7/16FD	7/16"
JA-1/2CD	JA-1/2FD	1/2"
JA-9/16CD	JA-9/16FD	9/16"
JA-5/8CD	JA-5/8FD	5/8"
JA-3/4CD	JA-3/4FD	3/4"

HEL-RTC1412C

21 Piece Chase 'em Back™ Thread Chaser Set

- Inch and metric set with common thread sizes up through 1/2" and M12. • Ideal for any tool box or maintenance crib. • Made of hardened stainless steel, treated for anti-rust and patented. • Includes a tool handle, a socket for use with 3/8" ratchet, and one of each of the following sizes:



1/4-20	3/8-24	M6x1.0	M9x1.25	M11x1.5
1/4-28	7/16-14	M7x1.0	M10x1.25	M12x1.5
5/16-18	7/16-20	M8x1.0	M10x1.5	M12x1.75
5/16-24	1/2-13	M8x1.25		
3/8-16	1/2-20	M9x1.0		

HEL-RTC16677

20 Piece Spindle Saver™ Front-Wheel Drive Spindle Thread Repair Set

- For the repair of damaged drive spindles. • Covers most domestic and import cars and light-duty trucks. • Fast, easy to use! • Repair the threads, don't replace the spindle. • Set consists of one of each of the following sizes:



11/16-24	7/8-14	M19x1.5	M22x1.5
3/4-16	1-14	M20x1.0	M24x1.5
3/4-20	M16x1.0	M20x1.25	M24x2.0
13/16-20	M16x1.5	M20x1.5	M25x1.5
27/32-20	M18x1.5	M22x1.0	M27x2.0



WARNING!

Wear safety goggles. Drilling pilot holes, inserting extractors and using extractors can cause flying chips.

HEL-4833

Oxygen Sensor Thread Repair Kit

- For exhaust manifolds - eliminates exhaust manifold replacement. • Includes 6 inserts, a M18 x 1.5 Reamer/Tap, and an installation tool.



HEL-RTC15577

8 Piece Sav-A-Stud™ Plus Reusable Wrap-Around Wheel Stud Thread Chaser Kit

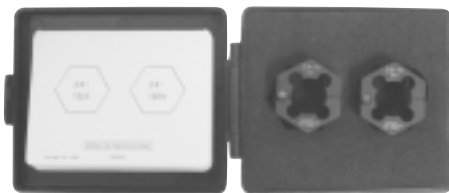
- Repairs wheel studs on most domestic and import cars and light-duty trucks. • All thread chasers listed are manufactured of hardened steel, treated for anti-rust, and patented. • Includes one of each of the following sizes:

7/16-20	1/2-20 LH	5/8-18	M12x1.75
1/2-20	9/16-18	M12x1.5	M14x1.5



HEL-RTC15578

2 Piece Sav-A-Stud™ Plus-HD Stud Set



- Repairs wheel studs on most heavy duty trucks, buses, and RVs. • Approved for use by the DOT. • Includes one of each of the following sizes: 3/4-16 RH and 3/4-16 LH.

LS-19250

6 Piece Bolt, Nut, and Stud Remover Set



- Removes standard and metric bolts, nuts, and studs from 1/4" to 9/16" (6mm to 14mm). • To use, drive the proper size remover over the bolt head, nut, or stud. The remover spine cuts into the bolt head or threads for a sure grip. Then use a back and forth motion with a wrench or socket to free the fastener. • Works well on flush mounted bolts and nuts. • Provides a no slip grip that withstands high torque. • Made of super strong, hardened tool steel for durability. • Set consists of one of each of the following:

PART NO.	DESCRIPTION	NOMINAL
LS-19260	Remover #1	1/4" (6mm)
LS-19270	Remover #2	5/16" (8mm)
LS-19280	Remover #3	3/8" (10mm)
LS-19290	Remover #4	7/16" (11mm)
LS-19300	Remover #5	1/2" (13mm)
LS-19310	Remover #6	9/16" (14mm)

JA-52

7 Piece Spindle and Axle Die Rethreader Set

- Designed not to cut a new thread but to chase out mushroomed, corroded, rusted threads. • Creates a fit just like new with no undercut. • Five Metric dies: 20 x 1.5, 22 x 1, 22 x 1.5, 24 x 1.5 and 24 x 2. • Two Fractional dies: 3/4"-20 and 13/16"-20. • All dies use same wrench for 1-1/2" hex. • Comes in high-impact custom molded red plastic box.



Thread Files



- High quality files with cross-cut and depth proportional to thread pitch; will not skip or jump out of fine pitches. • Renew damaged external threads of any diameter, right or left-hand. • Eight (8) pitches; 7/16" Sq. x 8-1/2" long, 6 oz.

PART NO.	PITCHES (TPI)
JA-1	11, 12, 13, 14, 16, 18, 20 & 24
JA-2	9, 10, 12, 16, 20, 27, 28 & 32
JA-8	0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50 & 3.00MM

VA-21922

Die Stock



- Professional quality die stock with steel handles to hold 1" round or hexagon dies. • Three-jaw, self-centering, adjustable guides provide easy and accurate threading.

Tap and Reamer Wrenches



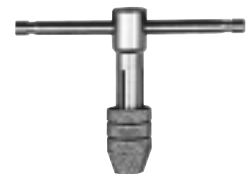
- Tap wrench jaws are heat-treated and hardened for long life. • Easy to adjust and use.

PART NO.	FOR TAP SIZES:
VA-21901	4MS to 1/2"
VA-21902	1/4" to 3/4"

T-Handle Tap Wrenches

- Spring tension holds T-handle in place. • Wrench jaws are adjustable and self-equalizing.

PART NO.	FOR TAP SIZES:
VA-21906	0 to 1/4"
VA-21907	1/4" to 1/2"



VA-21908

T-Handle Tap Wrench

- Spring tension holds T-handle in place. • Wrench jaws are adjustable and self-equalizing. • Has removable handle and 3/8" female square drive for extensions, ratchet and power drive. • For tap sizes 1/4" to 1/2".



Ratcheting Tap Wrenches

- Three position gear box for quick, efficient ratcheting action.
- Knurled nut for tightening.
- Ideal for hard-to-reach areas.
- Chrome plated for long life and rust resistance.



ATC-21110

10" Ratcheting Tap Wrench

- For tap sizes #0 - 1/4" (3mm to 6mm)

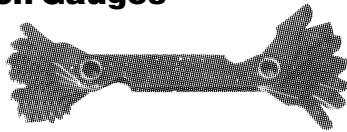


ATC-21112

12" Ratcheting Tap Wrench

- For tap sizes 1/4" - 1/2" (6mm to 12mm)

Screw Pitch Gauges

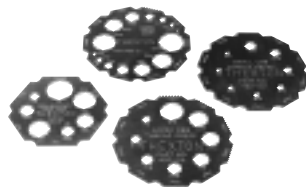


- Flat thread forms on the top of each blade give screw pitches on V-threads.
- Comes in a red vinyl pouch.

PART NO.	GAUGE	RANGE	PART NO.	GAUGE	RANGE
VA-21939	9 to 40 U.S.		VA-21938	0.45 to 2.50MM	Metric

TH-432

Universal Thread Gauges



- Set of four gauges to accurately identify common bolts, fittings, pipe threads and spark plugs with either USS or Metric threads.
- Soft aluminum won't damage threads on fine parts.
- Identifies both thread diameter and pitch, eliminates cross threading.
- Handy drill/tap chart included.

PU-SM1

Stud Remover



- Designed for efficiency in removing studs.
- Eccentric roller grips the stud more firmly as the user tightens down with a 1/2" square drive socket wrench.
- High grade heat-treated alloy steel.
- Capacity: 1/4" to 3/4".

OW-C6986

4 Piece Fractional Stud Remover/Installer Socket Set

- Designed and tested to reach studs in difficult work areas.
- Housed in a blow-molded storage case.

- Set consists of the following:



PART NO.	NOMINAL	DR. SIZE
OW-C6986-1	1/4"	3/8"
OW-C6986-2	5/16"	3/8"
OW-C6986-3	3/8"	1/2"
OW-C6986-4	7/16"	1/2"

OW-C6987

4 Piece Metric Stud Remover/Installer Socket Set

- Designed and tested to reach studs in difficult work areas.
- Housed in a blow-molded storage case.

- Set consists of the following:



PART NO.	NOMINAL	DR. SIZE
OW-C6987-6	6MM	3/8"
OW-C6987-8	8MM	3/8"
OW-C6987-10	10MM	1/2"
OW-C6987-12	12MM	1/2"

LS-71000

Threaded Stud Remover & Installer Set

- Removes threaded studs without damaging the threads, leaving the studs reusable.
- Can be used on any threaded stud but is most commonly used when removing threaded studs from aluminum heads.
- If threads are damaged slightly, this tool will re-cut the threads as long as the remover is started in straight.
- Includes the following stud remover and installer sizes:



Stud Installer No.	Stud Remover No.	Size
71010	71140	6mm - 1.0
71020	71150	8mm - 1.25
71030	71160	10mm - 1.25
71040	71170	10mm - 1.5
71050	71180	1/4" - 20
71060	71190	5/16" - 18
71070	71200	5/16" - 24
71080	71210	3/8" - 16
71090	71220	3/8" - 24
71100	71230	7/16" - 14
71110	71240	7/16" - 20
71120	71250	1/2" - 13
71130	71260	1/2" - 20

TWIST SOCKETS AND SETS; EXTRACTOR SETS

JS-201210

5 Piece 1/2" Drive Impact Twist Socket Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
JS-201211	3/4"-19MM Twist Skt.	JS-201214	15/16" Twist Skt.
JS-201212	13/16" Twist Skt.	JS-201215	1" Twist Skt.
JS-201213	7/8" Twist Skt.	JS-AJTS5-P	Extractor Punch

JS-201150

9 Piece 3/8" Drive Impact Twist Socket Set



- Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
JS-201170	10MM Twist Skt.	JS-201175	15MM Twist Skt.
JS-201171	7/16"-11MM T.Skt.	JS-201176	5/8"-16MM T.Skt.
JS-201172	12MM Twist Skt.	JS-201177	17MM Twist Skt.
JS-201173	13MM Twist Skt.	JS-201243	3/4"-19MM T.Skt.
JS-201174	14MM Twist Skt.	JS-AJTS9-P	Extractor Punch

JS-201153

13 Piece 3/8" Drive Impact Twist Socket Set



- Easily remove damaged and odd sized nuts, bolts, pipe nipples and studs. • Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
JS-201170	10MM Twist Skt.	JS-201177	17MM Twist Skt.
JS-201171	7/16"-11MM T. Skt.	JS-201243	3/4"-19MM T.Skt.
JS-201172	12MM Twist Skt.	JS-201182	3/8" Twist Skt.
JS-201173	13MM Twist Skt.	JS-201186	1/2" Twist Skt.
JS-201174	14MM Twist Skt.	JS-201188	9/16" Twist Skt.
JS-201175	15MM Twist Skt.	JS-201191	11/16" Twist Skt.
JS-201176	5/8"-16MM T. Skt.	JS-AJTS13-P	Extractor Punch

Impact Twist Sockets

- Easily remove damaged and odd sized nuts, bolts, pipe nipples and studs.
- Six fluted, spiral and tapered internal splines. • Matted black oxide finish.



PART NO.	DESCRIPTION	DRIVE	PART NO.	DESCRIPTION	DRIVE
JS-201170	10MM Twist Socket	3/8"	JS-201186	1/2" Twist Socket	3/8"
JS-201171	7/16" - 11MM Twist Socket	3/8"	JS-201188	9/16" Twist Socket	3/8"
JS-201172	12MM Twist Socket	3/8"	JS-201191	11/16" Twist Socket	3/8"
JS-201173	13MM Twist Socket	3/8"	JS-201211	3/4" - 19MM Twist Socket	1/2"
JS-201174	14MM Twist Socket	3/8"	JS-201212	13/16" Twist Socket	1/2"
JS-201175	15MM Twist Socket	3/8"	JS-201213	7/8" Twist Socket	1/2"
JS-201176	5/8" - 16MM Twist Socket	3/8"	JS-201214	15/16" Twist Socket	1/2"
JS-201177	17MM Twist Socket	3/8"	JS-201215	1" Twist Socket	1/2"
JS-201182	3/8" Twist Socket	3/8"	JS-201243	3/4" - 19MM Twist Socket	3/8"

OF-7332

5 Piece Fluted Type Screw Extractor Set



- Five extractors with sharp undercut edges to provide solid grip in studs, set screws, pipe & Alemite fittings. • Come in a vinyl pouch. • Set consists of the following:

PART NO.	BOLT SIZE	PART NO.	BOLT SIZE
OF-6961	1/4" - 5/16"	OF-6964	1/2" - 9/16"
OF-6962	3/8"	OF-6965	5/8"
OF-6963	7/16"	SI-K20	Kit Bag

ATC-53226

10 Piece Screw Extractor Set



- Set consists of the following:

PART NUMBER	SIZE	PART NUMBER	SIZE
ATC-53201	1/8"	ATC-53206	9/32"
ATC-53202	5/32"	ATC-53207	5/16"
ATC-53203	3/16"	ATC-53208	11/32"
ATC-53204	7/32"	ATC-53209	3/8"
ATC-53205	1/4"	ATC-53210	13/32"

ATC-53227

25 Piece Screw Extractor Set

- Set consists of the following:

PART NUMBER	SIZE	PART NUMBER	SIZE
ATC-53201	1/8"	ATC-53214	17/32"
ATC-53202	5/32"	ATC-53215	9/16"
ATC-53203	3/16"	ATC-53216	19/32"
ATC-53204	7/32"	ATC-53217	5/8"
ATC-53205	1/4"	ATC-53218	21/32"
ATC-53206	9/32"	ATC-53219	11/16"
ATC-53207	5/16"	ATC-53220	23/32"
ATC-53208	11/32"	ATC-53221	3/4"
ATC-53209	3/8"	ATC-53222	25/32"
ATC-53210	13/32"	ATC-53223	13/16"
ATC-53211	7/16"	ATC-53224	27/32"
ATC-53212	15/32"	ATC-53225	7/8"
ATC-53213	1/2"		



ATC-53228

15 Piece Screw Extractor Set

- Designed to remove broken studs, bolts, socket, screws and fittings.
- For use with sockets and flat wrenches.
- Set includes the following:

Part No.	Drill Bit Diameter	Bolt Diameter
ATC-53201	1/8"	#12
ATC-53202	5/32"	1/4"
ATC-53203	3/16"	5/16"
ATC-53204	7/32"	3/8"
ATC-53205	1/4"	7/16"
ATC-53206	9/32"	1/2"
ATC-53207	5/16"	9/16"
ATC-53208	11/32"	5/8"
ATC-53209	3/8"	11/16"
ATC-53210	13/32"	3/4"
ATC-53211	7/16"	13/16"
ATC-53212	15/32"	7/8"
ATC-53213	1/2"	15/16"
ATC-53214	17/32"	1"
ATC-53215	9/16"	1-1/16"



ATC-11119

10 Piece Drill Bit/Extractor Set

- Aggressive spiral designed extractors for extra grip on stubborn broken bolts.
- Left hand cobalt fractional mechanics length series drill bits are designed for use with spiral screw extractors.
- Drill bits have heavy duty web, 135° split point, and are made of cobalt high speed steel (HSS) for use in tough metals.
- Set includes the following in a metal index:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
LEFT-HAND COBALT DRILL BITS		EXTRACTORS	
ATC-30505	5/64"	ATC-52401	1, use 5/64" drill size
ATC-30507	7/64"	ATC-52402	2, use 7/64" drill size
ATC-30510	5/32"	ATC-52403	3, use 5/32" drill size
ATC-30516	1/4"	ATC-52404	4, use 1/4" drill size
ATC-30519	19/64"	ATC-52405	5, use 19/64" drill size



ATC-11135

35 Piece Screw Extractor/Drill Bit Set

- Removes broken studs, bolts, socket screws and fittings.
- Extractors have aggressive left-hand spiral design for extra gripping power; Extractor size and recommended drill bit size are etched on each tool for easy identification.
- Spiral screw extractors are made from rugged, high carbon steel to handle the stress of removing broken bolts.
- Multi-spline screw design creates a greater gripping area for more torque; Tough C4150 alloy steel construction.
- Left hand cobalt fractional mechanics length series drill bits are designed for use with screw extractors; Have 135° split point, heavy duty web, and are made of cobalt high speed steel (HSS) for use in tough metals.
- Set includes the following in a plastic case:



PART NO.	SIZE	PART NO.	SIZE	PART NO.	SIZE
ATC-30505	5/64"	ATC-30528	7/16"	ATC-53203	3/16"
ATC-30507	7/64"	ATC-30530	15/32"	ATC-53204	7/32"
ATC-30508	1/8"	ATC-30532	1/2"	ATC-53205	1/4"
ATC-30510	5/32"	ATC-31520	5/16"	ATC-53206	9/32"
ATC-30512	3/16"	ATC-52401	EX-1	ATC-53207	5/16"
ATC-30514	7/32"	ATC-52402	EX-2	ATC-53208	11/32"
ATC-30516	1/4"	ATC-52403	EX-3	ATC-53209	3/8"
ATC-30518	9/32"	ATC-52404	EX-4	ATC-53210	13/32"
ATC-30519	19/64"	ATC-52405	EX-5	ATC-53211	7/16"
ATC-30522	11/32"	ATC-52406	EX-6	ATC-53212	15/32"
ATC-30524	3/8"	ATC-53201	1/8"	ATC-53213	1/2"
ATC-30526	13/32"	ATC-53202	5/32"		

Screw Extractors

- Ideal for removal of broken studs, pipes, set screws or alemite fittings.
- Fine knurl design allows for increased spine strength as well as maximum tool life.
- Full length flutes for easy extractor starting.
- Shop finish prevents the development of rust by allowing the extractor to retain oil.
- Grips a larger cross section than the traditional extractor.



PART NUMBER	SIZE	PART NUMBER	SIZE
ATC-53201	1/8"	ATC-53214	17/32"
ATC-53202	5/32"	ATC-53215	9/16"
ATC-53203	3/16"	ATC-53216	19/32"
ATC-53204	7/32"	ATC-53217	5/8"
ATC-53205	1/4"	ATC-53218	21/32"
ATC-53206	9/32"	ATC-53219	11/16"
ATC-53207	5/16"	ATC-53220	23/32"
ATC-53208	11/32"	ATC-53221	3/4"
ATC-53209	3/8"	ATC-53222	25/32"
ATC-53210	13/32"	ATC-53223	13/16"
ATC-53211	7/16"	ATC-53224	27/32"
ATC-53212	15/32"	ATC-53225	7/8"
ATC-53213	1/2"		

Left-Hand Cobalt Drill Bits (not illustrated)

- Left hand cobalt fractional mechanics length series drill bits are designed for use with spiral screw extractors.
- Drill bits have heavy duty web, 135° split point, and are made of cobalt high speed steel (HSS) for use in tough metals.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
ATC-30505	5/64"	ATC-30516	1/4"
ATC-30507	7/64"	ATC-30519	19/64"
ATC-30510	5/32"		

EXTRACTORS AND SETS

Extractors (not illustrated)

- Aggressive spiral designed extractors for extra grip on stubborn broken bolts.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
ATC-52401	1, use 5/64" drill size	ATC-52404	4, use 1/4" drill size
ATC-52402	2, use 7/64" drill size	ATC-52405	5, use 19/64" drill size
ATC-52403	3, use 5/32" drill size		

Fluted Type Screw Extractors



- Have sharp undercut edges that bite positively in studs, set screws, pipe and alemit fittings.
- Gradual tapering flutes prevent wedging and binding.
- Objects with right or left threads may be removed.
- Extra rugged design for longer life.
- Drill size stamped on each tool.
- Special alloy steel, black oxide finish.

PART NO.	BOLT SIZE	PART NO.	BOLT SIZE
OF-6961	1/4"	OF-6964	1/2"
OF-6962	3/8"	OF-6965	5/8"
OF-6963	7/16"		

Spiral Fluted Screw Extractors



- Remove broken screws, pipes, bolts and studs.
- Tough, durable tool steel, heat-treated.
- Drill size permanently marked on shank.
- Meet Government specification GGG-E-936C.

PART NUMBER	SCREW EXT. NUMBER	REMOVE DIAMETER SCREW	DRILL SIZE (IN.)
VA-21801	1	3/32 to 5/32	5/64
VA-21802	2	5/32 to 7/32	7/64
VA-21803	3	7/32 to 9/32	5/32
VA-21804	4	9/32 to 3/8 and 1/8 pipe	1/2
VA-21805	5	3/8 to 5/8 and 1/4 pipe	17/64

VA-21822

5 Piece Spiral Fluted Screw Extractor Set

- A handy set of five screw extractors, Nos. 1 through 5 included.



ATC-54113

13 Piece Bolt Extractor Set, 1/4" to 3/4" (8MM to 19MM)

- Removes damaged or rounded nuts and bolts.
- Works with 3/8" drive socket wrench or standard wrench.
- Choose the bolt extractor that corresponds to the nut or bolt to be removed.
- Works on both standard and metric fasteners.

Set consists of the following:

PART NO.	SIZE	PART NO.	SIZE
ATC-53901	1/4"	ATC-53908	13MM
ATC-53902	5/16" or 8MM	ATC-53909	9/16" or 14MM
ATC-53903	3/8"	ATC-53910	5/8" or 16MM
ATC-53904	10MM	ATC-53911	17MM
ATC-53905	7/16" or 11MM	ATC-53912	11/16"
ATC-53906	12MM	ATC-53913	3/4" or 19MM
ATC-53907	1/2"		



ATC-54125

5 Piece Bolt Extractor Set, 3/4" to 1" (19MM to 24MM)



- Removes damaged or rounded nuts and bolts.
- Works with 1/2" drive socket wrench or standard wrench.
- Choose the bolt extractor that corresponds to the nut or bolt to be removed.
- Works on both standard and metric fasteners.

Set consists of the following:

PART NO.	SIZE	PART NO.	SIZE
ATC-53914	3/4" or 19MM	ATC-53917	15/16" or 24MM
ATC-53915	13/16" or 21MM	ATC-53918	1"
ATC-53916	7/8" or 22MM		

AD-A401C

4 Piece Drill-Out® Power Extractors



- Removes broken bolts and studs without damaging thread in the hole.
- Made of quality hi-speed steel.
- Collet is made from hot die steel.
- Precision ground left hand drill and 130° extractor with self-centering point; heat-treated for toughness.
- Designed to work in tight quarters.
- Set consists of the following:

PART NUMBER	REMOVES BROKEN BOLT OR STUD:
AD-A250C	1/4" or 6MM
AD-A312C	5/16" or 8MM
AD-A375C	3/8" or 10MM
AD-A500C	1/2" or 12MM

AD-620

6 Piece Combo DRILL-OUT® & X-OUT® Set



- DRILL-OUT® extracts #10 to 3/8"; X-OUT® removes #6 to #10 screws.
- Quickly and effortlessly extracts broken bolts, broken screws, and damaged screws.
- Drill bit & extractor in one tool.
- Drills up to and including grade 8 or 10.9 class bolts.
- Use with a variable speed drill or 1/4" hex bit screwdriver (not provided).
- Includes 2 X-OUT® Damaged Screw removers and 4 DRILL-OUT® Power Extractors in a storage case:

PART NO.	DESCRIPTION
AD-3001	#1 X-OUT® Screw Remover (#6 to #8)
AD-3002	#2 X-OUT® Screw Remover (#8 to #10)
AD-P190	Flip Style DRILL-OUT® Micro Power Extractor (#10 & 12-5MM)
AD-P236	Flip Style DRILL-OUT® Micro Power Extractor (1/4" or 6MM)
AD-A312C	DRILL-OUT® Power Extractor (5/16" or 8MM)
AD-A375C	DRILL-OUT® Power Extractor (3/8" or 10MM)



WARNING!

Wear safety goggles. Drilling pilot holes, inserting extractors and using extractors can cause flying chips. Extractors can break if overloaded.

AD-3019

3 Piece X-OUT® Screw Remover Set

- For removing damaged #6 to #14 screws. • Use with a 3/8" variable speed drill or a 1/4" hex multi bit screwdriver (not provided).



- Includes the following X-OUT® Screw Removers in a plastic case:

PART NO.	DESCRIPTION/USE
AD-3001	#1 — (removes #6 to #8 screws)
AD-3002	#2 — (removes #8 to #10 screws)
AD-3003	#3 — (removes #10 to #14 screws)

LS-70500

1/4" & 3/8" Drive Tap Socket Set

- Designed for use in restricted areas. • Ideal in areas where a T-handle will not fit. • Fits all number and fractional M.C.T.I. standard taps through 1/2". • Also fits 1/8" NPT taps and metric taps through 12MM manufactured to M.C.T.I. standards. • Set consists of one each of the following:



PART NUMBER	DESCRIPTION	FITS INCH	FITS METRIC	SHANK DIA.	SQUARE SIZE
LS-70520	1/4" #1 Socket	No. 1, 2, 3, 4, 6, 8	1.6, 1.8, 2, 2.2, 2.5, 3, 3.15, 3.5MM	.141	.110
LS-70540	1/4" #2 Socket	No. 8	4MM	.168	.131
LS-70560	1/4" #3 Socket	No. 10	4.5, 5MM	.194	.152
LS-70580	1/4" #4 Socket	1/4	6, 6.3MM	.255	.191
LS-70600	3/8" #5 Socket	5/16, 7/16	7, 8MM	.323	.242
LS-70620	3/8" #6 Socket	3/8	10MM	.381	.286
LS-70640	3/8" #7 Socket	1/2	12, 12.5MM	.367	.275
LS-70660	3/8" #8 Socket	1/8 NPT		.437	.328

LS-70940

1/2" Drive 3 Piece Tap Socket Set

- Fit larger taps. • For larger, fractional M.C.T.I. standard taps. • Ideal for use where a T-handle won't fit, especially in restricted areas. • Supplements the LS-70500 set and extends the range to 3/4". • Set consists of one each of the following:



PART NUMBER	DESCRIPTION	FITS INCH	FITS METRIC	SHANK DIA.	SQUARE SIZE
LS-70860	#9 Socket	5/8"	16MM	.480	.360
LS-70880	#10 Socket	11/16"	18MM	.542	.406
LS-70900	#11 Socket	3/4"	-	.590	.442

LS-70350

Die Socket

- For use in confined areas where regular die handles won't fit. • Design allows for use on long shafts. • For all 1" hex and 12 point dies. • Set screw holds the die in place. • Turn with 1/2" drive ratchet or 1" socket. • Shipping weight: 10 oz.



CEL-63403

Under Hood Light with LitePerch™



- Gives hands-free lighting of entire engine compartment. • Avoid awkward and dangerous halogen lights. • Works on all passenger cars and light duty trucks. • Under Hood light features 25 watt, cool running, fluorescent bulb and extra thick shatterproof housing. • 25' 18/2 SJTOW cord is oil and water resistant for superior life. • Light is 44" long. • LitePerch™ opens up from 4' to 6'6" and works on all cars and light duty trucks. • Self adjusts to fit the hood. • Light is easily positioned on LitePerch™ to better illuminate the work area. • Covered arms protect the hood from scratches.

CEL-63401 Under Hood Light

CEL-63402 LitePerch™/CEL-63401 and CEL-63403

NM-30025

32" Canopy Light



- Works on tool storage hutches from 55" to 85". • Lights up entire work area. • Doubles as a fluorescent work light. • Bright, white 18 watts of light. • 25 ft. SJTOW oil & water resistant cord with splice connector to remove the unit when desired. • Two magnets included for securing to hutch, yet allows for easy removal.

CC-05557

25 Ft. Trouble Light



- Heavy duty trouble light featuring T*PRENE insulated POLAR/SOLAR cord (remains flexible to -67°F, weighs 1/3 less than ordinary cord, resistant to solvents and grease). • Exclusive one-piece injection molded handle. • Grounded vinyl coated metal guard, side outlet and switch. • UL listed; meets OSHA specifications for general use. • Wire ga./cond.: 16/3; Wire type: SJEO. • 125 volt rating, 13 amp.

CC-05906-97 Replacement Metal Guard

CEL-61415

Angle Light with 30' Reel

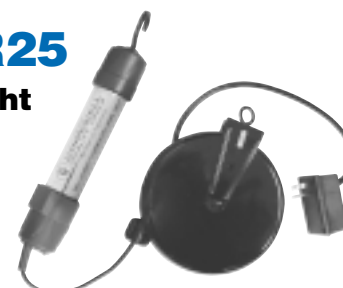
- Unique impact and solvent resistant construction. • Patented angle style. • Patented BOUNCE-BULB™ for superior impact protection. • Magnetic clamp with Velcro® strap. • Recessed power switch and 13 amp power outlet.



CEL-13250R25

13W Drop Cord Light with 25' Reel

- 13 Watt compact light to fit limited access areas; 11" Long. • 18/2 SJTOW cord type is 25' and oil and water resistant. • Swivel hanging hook.



LED WorkLites™

- Both WorkLites™ are shatterproof, waterproof, and patent pending.
- Each group of 30 elements is equivalent to a 40 watt incandescent bulb or a 13 watt fluorescent tube. The lighting elements generate very little heat. Even after the light has been on for hours, there is no chance of burning you or your work area.
- 1/8" thick polycarbonate tube.
- 1" diameter allows the WorkLites™ to fit into areas most other trouble lights fail to reach.
- Power requirements: 120 Volts, AC.
- 50 feet of cable.
- Adjustable stop; Integrated on/off switch.
- Ceiling mount and wall mount (hardware included).
- ABS plastic housing for durability & appearance
- Internal metal mechanism for durability & long life in the shop.



FI-204 30 Element LED WorkLite™ with 50 Ft. Reel

- Light length (including hook): 10".
- Shipping weight: 12 lbs.



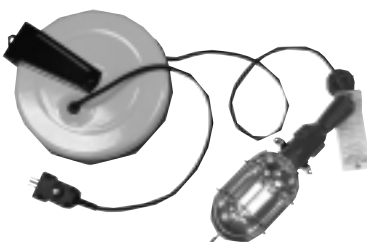
FI-214 60 Element LED WorkLite™ with 50 Ft. Reel

- Light length (including hook): 16".
- Shipping weight: 14 lbs.

AL-5000-50G-CB

50 Ft. Reel Light

- Resettable circuit breaker in handle with grounded convenience outlet and on/off switch.
- Metal bulb guard.
- 18 wire gauge, 3 conductor SVT wire type cord pulls out to desired length, locks, and automatically retracts. (7 Amp rating.)
- Includes hardware for ceiling (360° rotation) or wall mounting (180° rotation).
- UL listed.



AL-25-1 Handle with guard & tool tap

NM-20750

Heavy Duty Retractable Reel with Angle Light

- ABS shatter resistant housing holds 50 ft. of 16/3 SJTO cord.
- Cord is oil and chemical resistant and stays flexible in cold weather.
- Ceiling or wall mounting system with 180° swivel action.
- Ball stop on cord to adjust length.
- 7 amp circuit breaker to protect tools and reel from current overload.
- Internally mounted ballast.
- 120 volts, 60 Hz.



- NM-7MH001** Magnetic Tool Holder
- NM-71012** Replacement Lens
- NM-NEF-13RS** Replacement Rough Surface Bulb

AL-13RPL-40

Folded Fluorescent Reel Light

- 13 Watt twin tube fluorescent bulb.
- 40 ft. SVT 18/2 yellow cord.
- Cord pulls out of enclosed metal reel case to any desired length & locks.
- Retracts automatically with slight tug.
- Comes with hardware for ceiling or wall mounting.
- Shatter resistant outer housing, 3 conductor plug in ballast, on/off in handle.
- UL listed.



NM-NEF-13RS Repl. Rough Surface Bulb

NM-23T50

Reel with Triple Tap Extension Cord

- Heavy duty retractable reel with triple tap extension cord.
- 10 Amp circuit breaker.
- 50 ft. 16/3 SJTWA cord.
- Mounting bracket and hardware included.

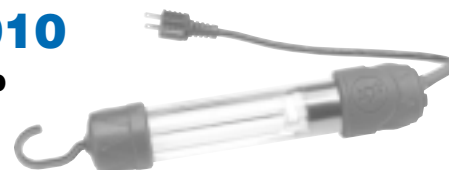


CEL-13010

13 Watt Drop Cord Light

- 13 Watt compact light to fit limited access areas; 9" Long.
- 18/2 SJTOW cord type is 1' and oil and water resistant.
- Swivel hanging hook.

CEL-11006-17 13 Watt Rough Service Bulb



NM-70R30A

30 Foot Reel Light

- 13 watt fluorescent work light.
- Recessed 10 amp power outlet and on/off rocker switch, adjustable magnet and 360° swivel hook.
- Cool running light with unbreakable housing and lens.
- Impact resistant rough service bulb will stand up to rigorous usage; equal to 60 watt incandescent bulb.
- Ballast in the handle to eliminate accidental disconnection from wall outlet.
- 120 volt, 60 Hz.
- Dual wall construction, tongue and groove design.
- CORD: 16/GA SJT 3 heavy duty conductor power cord, oil and water resistant.
- REEL: 30 ft. 16/GA 3 heavy duty conductor power cord on retractable reel, mounting brackets and hardware included.



- NM-7MH001** Magnetic Tool Holder
- NM-71012** Replacement Lens
- NM-NEF-13RS** Replacement Rough Surface Bulb

CEL-13250

13 Watt Drop Cord Light

- 13 Watt compact light to fit limited access areas; 9" Long.
- 18/2 SJTOW cord type is 25' and oil and water resistant.
- Swivel hanging hook.

CEL-11006-17 13 Watt Rough Service Bulb



CEL-15250

15 Watt Drop Cord Light

- 15 Watt, 25' Cord length.
- 18/2 SJTOW cord type is oil and water resistant.
- Shatter resistant.
- Adjustable hanging hooks.
- 20" Long.

CEL-10560-01 15 Watt Fluorescent Replacement Bulb



NM-60003

SuperDashlight™

- Cornwell Blue caps.
- 12 Volts.
- 4 Watt fluorescent under-dash light.
- 15 foot SPT-2 cord with fused cigarette plug.



CEL-61413

Angle Light with 25' Cord

- Unique impact and solvent resistant construction.
- Patented angle style.
- Patented BOUNCE-BULB™ for superior impact protection.
- Magnetic clamp with Velcro® strap.
- Recessed power switch and 13 amp power outlet.



NM-20025

X-2 Twin Tube Light

- 26 Watt dual fluorescent work light with tool tap and ratcheting swivel hook.
- Standard rough service bulb and 25' SJTOW cord.



- NM-2002510** Top Replacement Hook
- NM-20025-12** Light Cover
- NM-200252** Replacement Lens
- NM-200256** Bulb Holder
- NM-200257** Replacement Body
- NM-NEF13CW** 13 Watt Cold Weather Bulb



WARNING!

Electrical shock can result from absence of grounding prong. Do not remove or bypass the grounding prong in any electrical plug.

NM-40001

Fluorescent Conversion Light



- Turns any incandescent trouble light to fluorescent.
- Installs in minutes.
- Receive 60 watts of light from a 13 watt fluorescent bulb.
- Cool running light; allows work to be done inside vehicle without burning interior.
- 360° radius swivel hook.
- Unbreakable space age plastic body and lens.
- 10,000 hour bulb life, continuous use.

NM-NEF-13RS Repl. Rough Surface bulb

LED WorkLites!

FEATURES:

- Shatterproof and waterproof!
- Each group of 30 elements is equivalent to a 40 watt incandescent bulb or a 13 watt fluorescent tube.
- Features a durable polycarbonate tube.
- 1" diameter allows the WorkLites to fit into areas most other trouble lights fail to reach.
- Patent pending.
- The lighting elements generate very little heat. Even after the light has been on for hours, there is no chance of burning you or your work area.
- Power requirements: 120 VAC.

FI-201

DC Powered LED Light

- Length (including hook): 10" x 1" round; Lead length: 20 feet.
- Weight: 1 lb.



FI-202

AC Powered LED Light

- Length (including hook): 10" x 1" round; Lead length: 20 feet.
- Weight: 1 lb.



FI-203

DC Powered LED WorkLite

- 30 Elements.
- Length: 10" x 1" round.



FI-211

DC Powered LED WorkLite

- 60 Elements.
- Length: 16" x 1" round.
- Weight: 1.5 lbs.



FI-212

AC Powered LED WorkLite

- 60 Elements.
- Length: 16" x 1" round.
- Weight: 1.5 lbs.



NM-40007

Plug-In Fluorescent Light



- Turns any ordinary extension cord into a fluorescent work light.
- Portable light travels anywhere.
- Unbreakable body and lens.
- 60 watts of light from a 13 watt rough service fluorescent bulb.
- Cool running.
- Swivel hook allows 360° turn radius.
- Easy bulb replacement without tools.
- 10,000 hour bulb life; continuous use.
- UL approved.

NM-NEF-13RS Repl. Rough Surface bulb

Twin Bulb Fluorescent Drop Lights

- 13 Watts.
- 16 Gauge, 3 conductor cords, ballast in handle.
- Swivel hook and adjustable magnet holder.
- Easy bulb replacement.
- Rocker on/off switch.



PART NO.	DESCRIPTION	COLOR
NM-70025A	25' Drop Light	Blue
NM-70025AS	25' Drop Light	Orange
NM-70050A	50' Drop Light	Blue

- NM-7MH001** Magnetic Tool Holder
- NM-71012** Repl. Lens
- NM-NEF-13RS** Repl. Rough Surface Bulb

MK-ML123

12V Fluorescent Light



- Rechargeable 12V/9.6V job site light.
- Lens at the top of protector allows for lighting of narrow corners.
- The finish on the reflector is the result of special surface treatment.
- Never remove the lens and attempt to wipe or touch the reflector surface with your hand.
- Do not wash the job site light with water or keep it in a damp place.
- Battery and charger sold separately.

MK-ML700

7.2V Rechargeable Flashlight



- Provides 120 minutes of continuous illumination from a single charge.
- Lightweight - 1.5 lbs. with battery.
- Three position pivoting head.
- Overall length: 10-1/2".
- Battery and charger sold separately.

- MK-192240-5** Replacement Bulb
- MK-410307-0** Replacement Ring
- MK-431002-9** Replacement Lens
- MK-632002-4** 7.2VDC Ni-Cd Battery, Stick Style
- MK-DC1413** Charger

MK-ML903

9.6V Rechargeable Flashlight, Pod-Style



- Provides 120 minutes of continuous illumination from a single charge.
- Lightweight - 1.5 lbs. with battery.
- Four position head enables use in tight quarters or angling the beam in a given direction.
- Overall length: 10".
- Battery and charger sold separately.

- MK-192019-4** 9.6VDC Ni-Cd Battery, Pod-style
- MK-192546-1** Replacement Bulb
- MK-415807-5** Replacement Ring
- MK-415866-9** Replacement Lens
- MK-DC1413** Charger

Industrial Swivel-Lites™

- Contractor grade construction.
- Sure grip rubber handles.
- Batteries are included.

RV-ILJ2AA-B

"AA" Size Swivel-Lite™

- Clips on pocket, belt, etc.
- Two (2) way swivel action: head tilts and rotates.
- Uses two "AA"-size batteries.

RV-T1-2 Replacement Bulb



RV-ISL2D-B

"D" Size Swivel-Lite™

- Rubber end caps for extra durability.
- 90° pivoting head.
- Uses two "D"-size batteries.

RV-K2-2 Replacement Bulb



PP-1900C

MityLite™ Laser Spot™ Flashlight



- Made of unbreakable space age high impact polycarbonate resin.
- Focused beam that is 400% brighter than ordinary pocket lights.
- Includes built-in shirt clip, Laser Spot lamp module, and 2 "AAA" cell Energizer® alkaline batteries.
- Length: 4-3/4", Diameter: 5/8".

PP-1904 MITYLITE™ Lamp Module

SMW-SW650KIT

Magnum Force™ Light Kit



- Combines a powerful Xenon bulb with (2) 3V lithium batteries for 80 Lumens of brilliant white light.
- Constructed of T6-6463 High Density Aerospace Titanium Aluminum; Covered with ribbed, non-slip, rubber sleeve.
- Anodized inside and out for superior corrosion protection.
- Double "O" Ring sealed. Fire, water, moisture and chemical resistant.
- Lens made of high tension, shatterproof, and scratch resistant polycarbonate material.
- Under fully charged conditions, new battery life is 60 minutes. Storage life: 3-5 years.
- Lock out tailcap on light prevents accidental illumination.
- Constant on and signal switch.
- Spot to flood focusable beam.
- Includes carrying holster, 2 lithium batteries, and a spare Xenon bulb.

- SMW-SW652BAT** Battery (2)
- SMW-SW664SB** Bulb

SMW-SW822BL

2 "AA" Flashlight & Holster



- Blue flashlight with ultra-bright xenon bulb - 200% brighter than standard bulbs.
- Made of anodized aerospace aluminum.
- Weatherproof and corrosion resistant.
- Shatterproof lens.
- One-hand push button switch.
- Ideal for both home and professional use.
- Spare bulb in head assembly.
- "Spot-to-flood" adjustable beam.
- Includes flashlight, 2 AA batteries, and holster.

SMW-SW101X Xenon Bulb (2)

SMW-SW835BL

3 "D" Flashlight with Xenon bulb

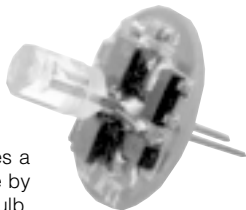


- Superb quality.
- Blue anodized aerospace aluminium body.
- Brilliant white Xenon bulb.
- Spare bulb in head.
- Shatterproof lens.
- One hand push-button operation.
- Weather-proof.
- Corrosion resistant.

JS-96337

Bi-Pin LED Replacement Bulb

- Fits any 2 "AA" cell flashlight that utilizes a Bi-Pin mount bulb
- Increases battery life by 16 times.
- Brighter than conventional bulb.



STL-75014

Stinger® Flashlight with AC/DC Charger



- Up to 15,000 candlepower for a full hour between charges.
- Black, machined aluminum housing anodized against corrosion inside and out; unbreakable polycarbonate lens.
- Self-cleaning switch.
- Spot-to-flood beam.
- Lightweight - 10 oz.
- Overall Length: 7-3/8".
- Includes charger, nickel-cadmium 3.6V battery (rechargeable up to 1,000 times), and a 3.7V, 6 watt, xenon gas filled bulb (spare bulb in tail cap).
- Charger and bulb also available separately.

STL-75000-9 Lens

STL-75027 Infrared Lens

STL-75100 Charger

STL-22051 Cigarette Lighter Charge Cord/STL-75100 Charger

STL-22311 AC Charge Cord/STL-75100 Charger

STL-75914 Bulb

PP-1930C

L1 LED Light with Lanyard



- LED lamp provides 50,000 hours of usage.
- Uses 4 replaceable LR44 1.5V alkaline coin cells (included).

MI-RX1019

Mag-Lite® Rechargeable System



- 5 cell (°-D) rechargeable battery stick.
- Operates on A/C or D/C current.
- Halogen lamp, Linear-Focusing® spot-to-flood beam, solid state electronics, aluminum anodized alloy case, self-cleaning switch.
- Length: 12-3/4"; Head diameter: 2-5/16"; Barrel diameter: 1-9/16".
- Weight: With battery pack: 31 oz.; Without battery pack: 17 oz.
- Includes: flashlight, rechargeable Ni-Cad battery pack, 110 volt to 12-14 volt converter, recharging cradle, 12-14 volt cigarette light adapter, two mounting brackets for recharging cradle.

MI-LR00001 Replacement Lamp

MI-ARXX075 6V Battery Pack

MI-M3A016

Pocket Mini Mag-Lite®



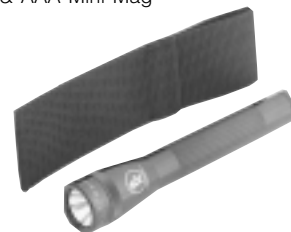
- Anodized black aluminum flashlight featuring an adjustable beam.
- Uses two "AAA" alkaline batteries.
- Includes pocket clip and spare lamp in tail cap.
- Length: 5".

MI-LM2A001 Replacement Lamp/AA & AAA Mini Mag

MI-M2A11H

Holster Combo Pack

- Pack includes: Mini Mag-lite® Flashlight, polypropylene belt holster, and two (2) Alkaline AA Energizer® batteries.



MI-M2A016

Mini Mag-Lite®



- Anodized black aluminum, adjustable beam, two "AA" alkaline batteries and spare lamp inside tail cap.
- Head diameter: 1"; Barrel diameter: 11/16"; Length: 5-3/4".
- Weight (w/o batteries): .013 oz.

MI-AM2A056 Nylon Mini Mag-Lite® Belt Holster

MI-LM2A001 Replacement Lamp/AA & AAA Mini Mag

MI-K3A012

Solitaire® Mag-Lite®



- Basic black flashlight is less than an ounce and about 3" in length.
- Uses a single "AAA" alkaline battery.
- Includes patented key lead and spare lamp in tail cap.
- Packaged in a 3-1/2" square presentation box.

MI-LM2A001 Replacement Lamp/AA & AAA Mini Mag

MI-S2D036

2 "D" Cell Mag-Lite®, Dark Red



- Constructed of anodized dark red aluminum and features adjustable beam.
- Equipped with two White Star™ Krypton lamps.
- Length: 10".
- Head diameter: 2-1/4"; Barrel diameter: 1-5/8".
- Weight (w/o batteries): .160 oz.

MI-LMSA201 2-Cell Alkaline Mag-num Star® Repl. Lamp

"D" Cell Mag-Lites®

- Constructed of anodized black aluminum and features an adjustable beam.
- Equipped with two White Star™ Krypton lamps.
- Head diameter: 2-1/4"; Barrel diameter: 1-5/8".



PART NO.	NO. OF BATT.	LENGTH	WEIGHT w/o batt.
MI-S2D016	2	10"	.160 oz.
MI-S3D016	3	12-3/8"	.173 oz.
MI-S4D016	4	14-1/2"	.187 oz.
MI-S5D016	5	17-1/8"	.202 oz.
MI-S6D016	6	19-1/2"	.215 oz.

MI-LMSA201	2-Cell Alkaline Mag-num Star® Repl. Lamp
MI-LMSA301	3-Cell Alkaline Mag-num Star® Repl. Lamp
MI-LMSA401	4-Cell Alkaline Mag-num Star® Repl. Lamp
MI-LMSA501	5-Cell Alkaline Mag-num Star® Repl. Lamp
MI-LMSA601	6-Cell Alkaline Mag-num Star® Repl. Lamp

VEC-127C

Super Sport Spot®

- 1,000,000 candle power cordless, rechargeable spotlight.
- Includes built-in area utility light in handle for repairs, walkways, campsites, job sites, etc.
- Also includes hands-free workstand (fold out legs) for roadside, floor, shelf or benchwork.
- Camouflage model includes safety and warning signal amber and red lenses.
- Instantly lights up the night.
- High intensity replaceable 100 watt quartz halogen bulb.
- Powerful beam carries over one mile!
- Charge at home or in vehicle (both AC and DC adapters included).
- Pistol grip design fits comfortably in hand.
- On/Off trigger switch locks for continuous beam.
- 6 Volt sealed rechargeable battery pack.
- Tough heavy duty ABS construction.
- Convenient hanging hook and rubber safety guard.



Cornwell Stylus™ 3 Pen Lights



- Combines the convenience of an ultra-slim pen light with a high intensity LED which lasts up to 100,000 hours
- Waterproof, machined aluminum case has a momentary blink switch plus constant 'on'.
- Versatile clip attaches to pocket or clothing.
- Runs over 10 hours on 3 "AAAA" alkaline batteries.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
STL-65012	Silver	STL-65022	Black with Blue Lens
STL-65018	Black		

STL-65030 "AAAA" Batteries

JS-10150A

16" Pro Bend-A Light®



- High intensity flexible light tool with 3/16" diameter spring-loaded bulb.
- Flexible 1/8" diameter 10" brass shaft with heavy duty switch.
- Heavy duty plastic barrel handle.
- Protective cover and 2 "AA" alkaline batteries included.

JS-12100	Repl. 3/16" dia. bulb
JS-12777	Replacement switch

Lightwave Flashlights!

- Solid state Light Emitting Diodes (LEDs) do not burn out. Typical lifetime: over 11 years.
- Virtually unbreakable lens.

Lightwave 2000™ LED AA Flashlights

- Super bright - visible over one mile.
- Space-age solid state circuitry makes batteries last 14 times longer than regular flashlight.
- Waterproof - not just water resistant - to 2 feet - (not for scuba diving).
- Shockproof - withstands drop from 10 feet.
- Utilizes four high-powered super-bright LED lights.
- Operates on three AA alkaline batteries (included).
- Twist flashlight head for easy on/off.



PART NO. DESCRIPTION

LW-2000	"AA" Flashlight with White Bulb
LW-2000BL	"AA" Flashlight with Blue Bulb
LW-2000GR	"AA" Flashlight with Green Bulb
LW-2000RD	"AA" Flashlight with Red Bulb

Features of LW-3000 and LW-4000

- Water resistant, designed for use in all weather conditions (to one foot - not for scuba diving).
- Industrial grade switch, rated for 10,000 on-off operations.
- Shockproof - withstands drop from 4 feet onto concrete!
- Genuine rubber over-molding.
- Push button for easy on/off.
- Very low cost per hour of operation - as low as less than 1 cent per hour.

LW-3000

Lightwave 3000™ LED C Flashlight

- Space-age solid state circuitry allows flashlight to stay continuously on for over 25 days.
- Powered by 7 high intensity super-bright white LED lights.
- Uses three C cell alkaline batteries (not included).



LW-4000

Lightwave 4000™ LED D Flashlight

- Space-age solid state circuitry allows flashlight to stay on continuously for over one month.
- Powered by 10 high intensity super-bright white LED lights.
- Uses three D cell alkaline batteries (not included).



VM-LEDMAG1

Cornwell Flexible Magnetic LED Inspection Light



- LED (Light Emitting Diode) never need replacing - last 100,000 hours.
- LED technology provides up to 20 times longer battery life.
- Anodized aircraft aluminum housing.
- Shock resistant.
- Magnetic, neodymium tip lifts .5kg.
- Uses three "N" size alkaline batteries (included).
- Insulated flexible cable allows over 20" reach into tight space.

MNA-1001

Magna-Lite® Display Caddy

- A pocket magnifier and flashlight in one! • Features dual purpose switch; To light, press switch down and hold. To lock on, press switch down and slide forward. • Wide beam lite. • Includes a total of 12 individual Magna-Lites® in a display caddy. • Batteries included.



Ray-O-Vac® Batteries



PART NO.	TYPE	SIZE	VOLT	PKG. QTY.
RV-810-2	Alkaline	"N"	1-1/2	2
RV-813-2	Alkaline	"D"	1-1/2	2
RV-814-2	Alkaline	"C"	1-1/2	2
RV-815-2	Alkaline	"AA"	1-1/2	2
RV-824-2	Alkaline	"AAA"	1-1/2	2
RV-A1604-1	Alkaline	-	9	1

UL-HTDISP

Mirror and Magnetic Pick-Up Tools Display

- Magnetic Retrieving Tools feature POWERCAP™ for greater lifting power. • Package weight: 5 lbs., 6 oz. • Features of the UL-HTC2, UL-HTE2 and UL-HTS2 Inspection Mirrors: Clear glass mirror for perfect reflection; All-angle ball joint holds mirror firmly for 360° viewing; Mirror encased in rugged, corrosion resistant, brushed stainless steel; Stainless steel telescoping handle is strong, long, and lightweight; Comfortable textured cushion grip keeps handle secure even in wet or oily hands.

- Set includes THREE of each of the following:



PART NO.	DESCRIPTION
UL-HT-1	Magnetic Retrieving Tool
UL-HT-2	Magnetic Retrieving Tool
UL-HT-3	Magnetic Retrieving Tool
UL-HTC2	2-1/4" Inspection Mirror (Telescopes from 6-1/2" to 36-3/8")
UL-HTE2	1-1/4" Inspection Mirror (Telescopes from 6-1/2" to 35")
UL-HTS2	3-1/4" Inspection Mirror (Telescopes from 6-1/2" to 29-1/2")

UL-GM2

MegaMag Magnetic Pick-Up Tool

- Stainless steel antenna telescopes from 7-1/8" to 30-1/4" and lifts 16 lbs.



UL-HT5DIS

Ten Piece Magnetic Pick-Up Tool Display

- Set of 10 pocket telescopic magnetic pick-up tools (five **UL-HT-5R** with red cushion grips and five **UL-HT-5B** with black cushion grips). • Magnet will pick up to 2-1/2 lbs. and shields the sides from attaching to unwanted metal surfaces.



UL-GMC2

C-Master Inspection Mirror and MegaMag Magnetic Pick-Up Tool

- Combined magnetic pick-up tool and inspection mirror telescopes from 9" to 34-3/8". Lifts 16 lbs. • Textured cushion pistol grip will not slip in wet or oily hands.



UL-K2

Inspection Mirror

- All angle telescoping ball joint rectangular mirror with brushed finish mirror back. • Double ball joint links swivel mirror 360° • Links are tempered spring steel to hold desired position. • Non-rotating inner hex rod prevents mirror from swinging out of alignment when in use. • Insulating vinyl grip. • 2-1/8" x 3-1/2" mirror. • Overall Length: 11-1/4", extends to 15-1/4".

UL-K2R Refill Mirror Only



UL-B2

Inspection Mirror

- 1" x 2" mirror. • Overall length: 8-1/2". • Replaceable clear glass mirror for perfect reflection. • Insulated vinyl grip.

UL-B2R Replacement Mirror Only



CLS-30210

Magnetic Pick-Up and Inspection Mirror

- A telescoping magnetic pick-up tool and inspection mirror in one. • Pick-up tool will hold 2 lbs. and extends from 7-3/4" to 21-1/4". • Attach mirror housing to the magnet for a high quality, 2-1/4" diameter inspection mirror. • Locking teeth prevent the mirror from swiveling on the magnet. • Non-rotating telescopic handle also holds the mirror/magnet in position when extended. • Mirror slides on and off of magnet.



UL-14X

Flex Magnetic Retrieval Tool



- Retrieves lost ferrous metals, nuts, bolts and tools.
- Flexible aluminum shaft remains in position.
- Super strength Neodymium-Iron-Born extra high flux magnet for greater pick up power - powerful enough to pick up objects weighing 1-1/2 pounds under correct conditions.
- Sturdy knurled aluminum handle.
- 21-9/16" long.

UL-6FL

Flexible Magnetic Pick-Up Tool



- Perfect for retrieving dropped nuts, bolts, even metal hand tools dropped while working on engines.
- Tightly wound flexible shaft of spring tempered steel links to probe easily into most remote areas for ferrous metal objects.
- High power ALNICO V permanent magnet provide lifetime pulling power.
- Overall length: 25".

UL-12X

Flexible Magnetic Retrieval Tool



- Tightly wound flexible spring that bends into tight spaces to retrieve dropped metal objects up to 1-1/2 pounds.
- Neodymium-Iron-Boron magnet is housed in a special case to prevent premature contact until properly extended.
- Spring loaded plunger engages/disengages magnet.
- Length: 22".

UL-16

Flexible Claw Spring



- Bright plated steel spring reaches into inaccessible places.
- Press plunger and four spring steel claws expand; release plunger and claws retract.
- Grasp hot utensils, dropped machine parts, etc.
- Length: 23-1/2".

Telescopic Magnetic Retrieving Tools

- Made of stainless steel and have a comfortable textured cushioned grip that prevents the handle from slipping even in wet or oily hands.
- Feature new Powercaps that increase magnet lifting power by at least 45% and blocks the sides from attaching to metal surfaces.



UL-HT-1

Magnetic Retrieving Tool

- Lifts 1-1/2 lbs.
- Telescopes from 6-1/2" to 30-1/4".

UL-PC-1 Replacement PowerCap

UL-HT-2

Magnetic Retrieving Tool

- Lifts 3-1/2 lbs.
- Telescopes from 6-5/8" to 33-1/4".

UL-PC-2 Replacement PowerCap

UL-HT-3

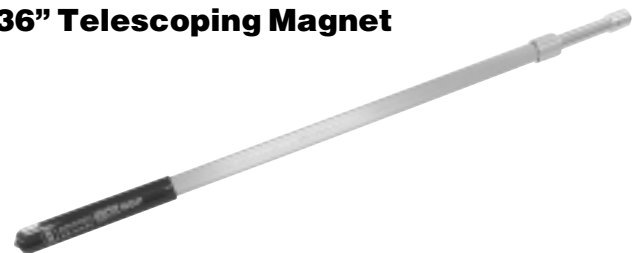
Magnetic Retrieving Tool

- Lifts 5 lbs.
- Telescopes from 6-5/8" to 33-1/4".

UL-PC-3 Replacement PowerCap

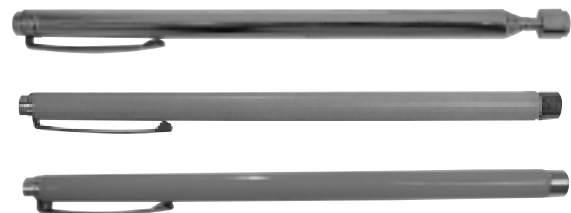
EC-MM36

36" Telescoping Magnet



- Removes broken axle pieces.
- Starts bolts in tight spots.
- Telescopes to 36 inches.
- Lifting capacity: up to 10 lbs.
- Insulated handle.
- Neodymium rare earth magnet.
- Easy to use and store.

Super Strength Pocket Telescopic Magnetic Retrieving Tool



- Neodymium-Iron-Boron extra high flux magnet for pick-up of ferrous metal objects up to 1-1/2 pounds.
- Super adjustable telescoping action.
- Bright chrome plated brass handle.
- 5-7/8" pocket length extends out to 25-9/16".

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
UL-15X	Std. tool	UL-15XOR	Std. tool-Neon
UL-15XGR	Std. tool-Green handle		Orange handle

DIAGNOSTIC & UNDERHOOD



*The Choice of Professionals®
- Since 1919 -*

OW-C3461**Master TECH FORCE
Scan Tool Set**

- **TECH FORCE** scan tool provides over 20 years of GM, Ford, Chrysler, Jeep and Saturn coverage, with further releases throughout the year via Internet/modem.
- Also covers European and Asian vehicles.
- Automatically records digital data behind each frame of information.

- "Record and Playback" feature lets user recall the information later in graph or data form, regardless of how it was recorded.
- Check an entire event - 150 frames of data.
- Use the Magnify window for 15 frames resolution for even more detail.
- Offers a Quick-Start tutorial.
- With the Pathfinder Troubleshooting software, the operator can find Break Out Box information, Vehicle specifications, Code Setting criteria, No Start diagnostics, Data/Sensor information, Functional Test, Fuse Box locations, and much more.
- Deluxe screens give data in the manner best suited for almost any diagnostic challenge.

SET INCLUDES:

- **2002 Cornwell TECH FORCE** scan tool loaded with **Pathfinder 2002, REPAIR-TRAC, Import '96 plus Import cable kit and Import 2000 software, domestic cable kit, ABS and Airbag 2002 software and cables.**
- Also includes **Pathfinder II software cartridge, cartridge reader, manuals, adapters and domestic vehicle cables for GM, Ford, Chrysler, Jeep, Saturn and OBD II and master carrying case.** (Import OBD I software and cables NOT included.)

**OW-C3454****Tech Force 2002 Deluxe Kit with
Import 2000**

- **TECH FORCE** scan tool provides over 20 years of GM, Ford, Chrysler, Jeep and Saturn coverage, with further releases throughout the year via Internet/modem.
- Also covers European and Asian vehicles.
- Automatically records digital data behind each frame of information.
- "Record and Playback" feature lets user recall the information later in graph or data form, regardless of how it was recorded.
- Check an entire event - 150 frames of data.
- Use the Magnify window for 15 frames resolution for even more detail.
- Offers a Quick-Start tutorial.
- Deluxe screens give data in the manner best suited for almost any diagnostic challenge.

SET INCLUDES:

- Includes scan tool loaded with **Pathfinder 2002, REPAIR-TRAC, and Import 2000 software.**
- Also includes **Pathfinder II software cartridge, cartridge reader, manuals, adapters and domestic vehicle cables for GM, Ford, Chrysler, Jeep, Saturn and OBD II and master carrying case.** (Import OBD I software and cables NOT included.)

OW-3305-118**Enhanced Monitor
Deuce '01
Basic
Software
Update Kit**

- For use with the Monitor Elite and Enhanced Monitor. Order this software update kit if you have Pathfinder '97, '98, '99, and *Import '96 (*You must have the OTC 3305-73 with 3306-01 Generic OBD II cable set).
- Includes Deuce '01 software cartridge.
- Provides diagnostic coverage on '98 to '00 Chrysler, Ford, GM, Jeep, and Saturn vehicles, and select 2001 Chrysler and Ford systems, as well as Asian import coverage from 1996 thru 2001.
- Cables available separately.

OW-3305-105**Import Cable
Kit**

- Provides import coverage when used in conjunction with software contained in the Monitor Elite Deluxe Set.
- Kit includes the following: MITSU/DS Cable, Universal Test Leads, Lexus/Toyota Cable, Nissan Code Jumper Cable, Honda/Acura Code Jumper, GEO/Suzuki Adapter, Subaru Cable, GEO/Isuzu Cable, Universal A Cable, MECS Adapter Cable, Nissan Cable, and MET Cable.

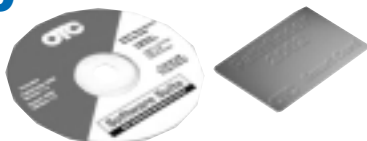
**OW-3305-102****'96 Import
Cartridge**

- Provides system coverage through 1996 for 16 different Asian imports plus OBD II capability.
- Live data stream systems can be accessed on specific Toyota, Lexus, Isuzu, Subaru, Mitsubishi, Hyundai, and GM- and Chrysler-badged imports including OBD II applications.
- Two-event record and playback is standard, to allow for in-shop comparisons. One or both events can be saved for permanent records.
- Expands coverage to include Asian imports for Monitor 4000E and Enhanced Monitor owners already having necessary cables and adapters.

Note: To be able to do OBD II diagnostics, you must have an Enhanced Monitor, OBD II cable, and System Smart Insert which are NOT included in this kit.

OW-3421-24**NGT-ABS/
Air Bag Kit**

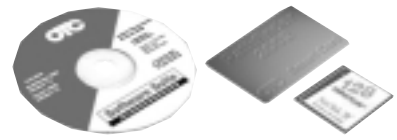
- NGT ABS/Air Bag specific cables, two system smart inserts.

**OW-3421-20****Pathfinder 2002
Software Update
Kit**

- Includes REPAIR-TRAC tech tips, 2002 Smart Card, manuals, and a CD with a Windows program used to download software updates.

OW-3421-21**Pathfinder 2002 Deluxe Software
Update Kit with Memory Card**

- Includes REPAIR-TRAC tech tips, 2002 Smart Card, 28mB Compact Flash Memory Card, manuals, and a CD with a Windows program used to download software updates.

**OW-3421-22****ABS/Airbag 2002
Update for Tech Force
(Software ONLY)**

- Includes software CD, 2002 Smart Card, and manual.

**OW-3421-23****ABS/Airbag Update Starter Kit with
Software & Cables**

- Includes ABS specific cables, two system smart insert, software CD, 2002 Smart Card, and manual.
- Adds bi-directional testing, Pathfinder troubleshooting, and ABS specific cables.

**OW-3421-17****ECM Flash Kit for GM**

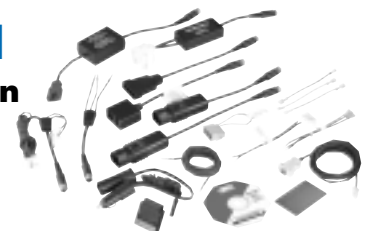
- Includes GM Reprogramming CD (for Windows), Application Data CD, PC Hardware security lock, Smart Card, System Smart Insert and manual.

**OW-3421-10****TECH/FORCE Asian
Import 2000
Software Update
Kit**

- For **TECH/FORCE** owners who already own the OBD I Import '96 Starter Kit and want to update coverage to the year 2000.
- Kit includes an Import 2000 update CD, Smart Card, TECH/FORCE-to-PC interface cable, and manuals.

**OW-3421-11****TECH/FORCE Asian
Import 2000
Software
Starter Kit**

- Adds OBD I & II import coverage to the **TECH/FORCE** domestic kit and includes Import 2000 update CD, Smart Card, TECH/FORCE-to-PC interface cable, vehicle cables, Import '96 software cartridge, and manuals.



OW-C3753

TECH-MATE OBD-II Scan Tool



- Provides troubleshooting capabilities including freeze frame, readiness tests, continuous monitors, and more.
- Troubleshoot domestic vehicles, Asian and European imports which conform to OBD II Generic standards for '95 to 2003 and beyond.
- Covers '81 to '95 GM vehicles, '83-1/2 to '95 Ford vehicles, and '84 to '95 Chrysler vehicles.
- With Ford DCL coverage, record and play back one event from the DCL data stream.
- Easy-to-use key pad and a four-line, twenty-character, LCD data display.
- Records a single "event" for playback and review of diagnostic data. Saves information/data for up to 72 hours.
- Includes scan tool, 5 vehicle cables for GM, Ford, Chrysler, and OBD II/Ford DCL, and instruction manual in rugged storage case.

OW-C3820

Cornwell TECH/TRACE Lab Scope/ Multimeter



- Two channel graphing multimeter with vehicle-specific database and "glitch" capture.
- Split screen displays both graphing DMM and scope patterns.
- Vehicle-specific database gives wiring diagrams for the circuit and recommended test procedure for fast, accurate repairs.
- Full function multimeter offers fast sampling rate.
- Multimeter function gives up to three measurements simultaneously.
- Provides readout of volts, peak volts, ohms, dwell, duty cycle, peak to peak, injector pulse width, injector on time, firing voltage, burn voltage, and burn time.
- "Smart" mode recognizes differences between normal and unusual patterns. TECH/TRACE sees, saves, and stores glitches, drop-outs, and spikes when they occur to find cause of driveability problems.
- Single cylinder ignition troubleshooting gives digital display of firing kV, burn kV, and burn time.
- Updates available over the Internet from the OTC bulletin board.
- 3" x 3-3/4" (120 x 160 pixels) midnight blue display.
- Uses six AA alkaline batteries; operating time is approximately 10 hours minimum (without backlight).
- Low battery indication displayed.
- RS232 serial interface provided for bi-directional communication for PCs.
- Set includes multimeter with color-coded lead set, secondary ignition lead, 110 volt AC power supply, video and manual in storage case.

OW-3820-11

TECH/TRACE 2000 Software Update

- Includes CD-ROM, PC-to-Tech/Trace cable, certificate (authorization) number, and complete instructions.
- New features include an O2 sensor test and expanded vehicle-specific database.
- Update by connecting to the BBS, downloading the update data files and new tests to your PC, and then (with your Tech/Trace connected to the PC) download those files and tests to your Tech/Trace.



OW-3780

5-Gas Module and Software Kit for TECH/FORCE



- Module easily snaps onto the Tech Force, providing another level of diagnostic capability.
- The Tech Force Gas M-P Software is operating software for the Performance Gas Module and an update for the MicroGas Module.
- Combining exhaust analysis with computer scan based testing provides cause and effect diagnosis capabilities. This powerful combination covers any emission related diagnosis required, and the advanced gas diagnostics provide the ability to test for mechanical failures.
- Compact 5-gas module weighs less than 1-1/2 lbs.
- Automatic water purge eliminates the need to disassemble water trap or manually drain water.
- Water overload protection keeps liquids from entering the system.
- Automatic zero mode eliminates the need to remove the sample probe from the tailpipe.
- Heavy duty pump is rated at 2-10 times the life expectancy of other portable analyzers.
- Heavy duty filtration has long life, which dramatically reduces operating costs.
- Meets or exceeds BAR 97, OIML Class 0 standards.
- Includes module, hose/probe, Gas M-P software, regulator, filters, manual and storage case.

OW-3965

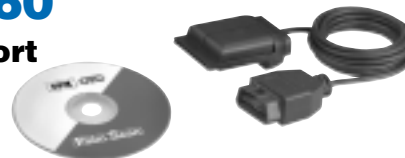
Visor Neo™ Personal Data Assistant (PDA)

- Recommended for use with **OW-C3960** Expansion Port PDA Scan and **OW-C3961** Expansion Port PDA Scope listed below.
- Size: 4.8" x 3" x 0.7"; Weight: 5.4 oz.
- Memory: 8MB; Processor: 33MHz
- Features Palm OS®, Springboard™ expansion slot, Infrared communication, and built-in microphone.
- Includes Visor Neo™ PDA, protective snap cover, metal stylus, USB HotSync® cradle, AAA batteries (2), and desktop synchronization software CD-ROM (for both Windows and Macintosh).



OW-C3960

Expansion Port PDA Scan



- Troubleshoot any 1996 and newer vehicles with OBD II.
- Designed for professional use.
- Eliminates the weak point connection at the base of the PDA.
- No PC is required to load and reload software after memory loss.
- Features "plug and play."
- Extra fast connection to Visor bus, much faster than serial connections.
- Includes module and connector cable, software CD, storage case, and instructions. PDA is NOT included.

OW-C3961

Expansion Port PDA Scope



- Battery operated, 2-channel lab scope module.
- A component or circuit can be selected to auto-configure the scope settings.
- Snap-to-signal cursor selects a point in the waveform just by tapping on the touch screen display.
- An accurate cursor value is displayed regardless of the voltage range setting.
- Absolute and relative voltage, frequency and span are automatically calculated between two cursors.
- Ideal for those fast-occurring events which can be missed by a scan tool.
- Includes module for Handspring Visor PDA, software CD, set of black, yellow, and red test leads, storage case, and operating manual. PDA is NOT included.

OW-C3762**Air Bag/ABS
Scan Tool**

- New and expanded coverage through 2002 model year - includes European air bag and engine coverage, OBD II engine coverage and expanded Asian and domestic air bag and ABS.
- Read and clear OBD II engine codes, 1996-current.
- Diagnose and clear engine/emission malfunction lights.
- European air bag coverage: clear air bag codes on VW/Audi vehicles.
- Air bag reset procedure guides the technician through an inspection and reset procedure.
- Clear trouble codes and repair/extinguish ABS and SRS warning lights.
- Coverage includes older Chrysler CCD ABS systems as well as OBD II ABS and air bag systems. Codes, code descriptions and data stream are included for most 1987 and newer ABS systems and newer vehicles.
- View data values and perform bi-directional tests on many ABS applications including GM Delco IV and Delco III - activate solenoids, relays and motors to verify proper operation.
- Bi-directional testing and brake bleeding to further enhance diagnostic capabilities. These include motor rehome test, manual and hydraulic control test, EMB test and motor test, gear tension relief, enable relay test, voltage load test, lamp test, system ID test and brake bleed.
- Includes scan tool and cables needed to perform ABS and air bag diagnostics, plus an operating manual, packaged in a handy storage case.

OW-3763**Air Bag/ABS Update Package
[Not Illustrated]**

- Update your existing Air Bag/ABS scan tool.
- Package includes manual, additional cables, inserts and mailer. (NOTE: Tool needs to be sent in for enhanced functionality hardware update, mailer included.)
- Use to upgrade your OW-C3761.

OW-C3770**Cornwell
Air Bag Simulator**

- Replaces the air bag in the system and puts the proper electrical load on the circuit, so there is no chance for accidental deployment during testing.
- Universal design eliminates the need for several vehicle specific tools.
- Works on GM, Ford, Chrysler, Saturn, Honda & Mitsubishi - expandable for future or additional applications!
- Tools & Techniques CD-ROM provides diagnostic procedures, wiring schematics, and rearming procedures on 1983-2000 domestic and import cars, vans, and light trucks. Includes detailed drawings and component locations, recommended procedures for post-collision inspection, and step-by-step procedures on trouble code diagnosis.
- Includes simulator, leads for U.S. domestic and import vehicles, Tools & Techniques for air bags on CD-ROM, and a handy storage case.

OW-C3481**Scope Module**

- Requires Pathfinder 2001 for use.
- Fast and simple to use graphical user interface.
- Easy to use color-coded cables, built-in training mode, and powerful diagnostic features.
- Includes the 4-Channel Scope Module, 4 DMM leads, ground lead, kV ignition lead, ignition sync lead, manual, and scope smart card.
- Storage cases for the **OW-C3461** and **OW-C3454** have storage facilities for this Scope Module.

KA-9040A**Global OBD II
Code Scanner**

- Read and erase diagnostic trouble codes stored in the computer on 1996 to current OBD II vehicles.
- Read and erase OBD II pending codes.
- View global OBD II freeze frame data.
- View inspection/monitor status.
- View MIL command status.
- Expanded key word 2000.
- Enhanced code category descriptions.
- Easily updates using an interchangeable computer chip.
- Easy to use, menu-driven software guides user through tool.
- Large, 2-line backlit display with adjustable contrast control.

KA-9040UA Upgrade for KA-9040

- New for 2003: View global OBD II freeze frame data, view inspection/monitor status, view MIL command status, expanded key word 2000, and enhanced code category descriptions.

KA-9620A**Global OBD II
Scan Tool**

- Read/erase trouble codes, including pending, on 1996 to current OBD II vehicles.
- View, record and playback live PCM data streams.
- Customize data lists to view only data needed.
- Freeze frame multiple module support.
- I/M monitors drive cycle support.
- Expanded key word 2000 vehicle erase code functions.
- Enhanced code category descriptions.
- Expanded non-continuous functions.
- Additional PID validation information.
- Easy to use, menu-driven software with built-in help screens.
- Easily updates using PC flash programming.

KA-9620UA Upgrade for KA-9620

- **New for 2003:** Freeze frame multiple module support, I/M monitors drive cycle support, expanded key word 2000 vehicle erase code functions, enhanced code category descriptions, expanded non-continuous functions, and additional PID validation information.

**WARNING!**

Read operating instructions thoroughly.

KA-9640A

Professional Enhanced Scan Tool

- Read 1984-1995 historic, 1996 to current Global OBD II and 1995-1999 GM, Ford, Chrysler enhanced.
- View, record and playback live PCM data streams.
- Customize data lists to view only data needed.
- Freeze frame multiple module support.
- I/M monitors drive cycle support.
- Expanded key word 2000 vehicle erase code functions.
- Expanded non-continuous functions.
- Additional PID validation information.
- Expanded freeze frame record support.
- Addition of 1999 GM, Ford & Chrysler enhanced coverage.
- Easily updates using PC flash programming.

KA-9640UA Upgrade for KA-9640

- **New for 2003:** Freeze frame multiple module support, I/M monitors drive cycle support, expanded key word 2000 vehicle erase code functions, expanded non-continuous functions, additional PID validation information, expanded freeze frame record support, and addition of 1999 GM, Ford & Chrysler enhanced coverage.



OW-3471

I-Pro Asian Scan Tool

- OEM Korean software for Kia and Hyundai vehicles.
- Japanese vehicle coverage superior to competition.
- ABS and air bag crash data for OEM's that support it.
- Automatic vehicle connector pinout detection for vehicle communication.
- No System Smart Inserts (SSI) necessary.
- Automatic protocol detection mode for OBD II and OBD I vehicles.
- Easy to use and store vehicle adapters.
- Fast updates through USB.
- Vehicle communication status LEDs.
- Graphic connector location diagrams, etc.
- Data graphing.
- CAN enabled.
- Includes: Scan tool, OBD I and II Asian import software, Asian import cables, adapters, manuals, and rugged metal carrying case with foam insert.



CED-C3545

CORNWELL TECH/DAT PRO Automotive Ignition Tester

- Ignition Digital Automotive Tester with dual action selector wheel, and power and function buttons that allow movement of leads and probes for one-hand operation.
- Digital multimeter has autoranging for AC/DC volts, resistance and amps; measures duty cycle, frequency, temperature and RPM; continuity and diode test capabilities, MIN, MAX, Delta, and Adjustable Logic Probe.
- Performs Battery Drain Test, Electrical System Test, Sensor Tests, Fuel System Tests and Ignition System Test.
- Complete Ignition DAT Kit - All features included: Volts, Ohms, Amps, BATT, ELEC, SEN, FUEL and IGN.
- Kit includes ignition DAT and complete lead set to accomplish the tests, battery, manual and storage case.

CED-3500-42 Fuse



CED-C3535

CORNWELL TECH/DAT Automotive Electrical Tester

- Electrical Digital Automotive Tester with dual action selector wheel, and power and function buttons that allow movement of leads and probes for one-hand operation.
- Digital multimeter has autoranging for AC/DC volts, resistance and amps; measures duty cycle, frequency, temperature and RPM; continuity and diode test capabilities, MIN, MAX, Delta, and Adjustable Logic Probe.
- Performs Battery Drain Test and Electrical System Test.
- Complete Electrical DAT Kit - Features Volts, Ohms, Amps, BATT and ELEC functions.
- Kit includes electrical DAT, standard lead set, battery, and manual.

CED-3500-42 Fuse



FI-73

Secondary Ignition KV Probe

- Hand held power.
- Easy to use - connect ground lead to good engine ground and press fit KV clip over spark plug or coil wire.
- Verify operation of dual plug and capacitive discharge (CD) ignition systems, plus motorcycle and marine ignition systems.
- Polarity Indicator determines the firing polarity of a coil.
- Diagnose improperly installed coils on distributor ignitions and assist in connecting large diagnostic scopes to DIS ignitions.
- Twenty segment real time bar graph displays KV measurements.
- Durable KV clip has no moving parts to wear out; flexes to fit over large diameter spark plug wires.
- Internal 9 Volt Battery.



FI-91

Automotive Labscope

- Use as a standard full featured dual trace labscope.
- Presets measurement ranges for over 50 different sensors and actuators.
- Record your own presets and waveform patterns in one of 2 user programmable memory locations.
- Every preprogrammed setup has a reference waveform included; press the reference button to see what a known good waveform looks like.
- Clearly marked buttons and easy to understand screen instructions.
- Upload and download presets and waveforms using popular waveform manager programs with RS-232 Port.
- Includes FI-950 Labscope KV adapter to capture ignition parade waveforms on distributor and DIS ignitions.
- Power requirement: 6 "AA" Batteries.



KA-2992

Ignition Module and Sensor Tester

- Combines ignition module, igniter and sensor testing features in one tool.
- Quick, easy to use "good/bad" tester.
- For GM, Ford, Chrysler, Honda, Toyota and Nissan vehicles.
- Test ignition modules and igniters, most sensors, continuity, diodes and wiring.
- Instruction manual details hook up and test procedures.
- Back probe included for in-circuit testing.
- 9V battery operated; computer safe.



KA-2993

KV/DIS/COIL Tester

- Hand held tester for DIS, ignition modules and KV.
- See realtime KV measurements on digital display; 8 memory locations for KV measurements.
- LED for good/bad status.
- Display RPM during module test.
- Scroll easily through readings, simulate most DIS/computer signals, test DIS, wide range of RPM testing; work on all KV systems.
- Includes: 3 digit numeric display, red and black hippo clips with 15 pin D connector, DIS module pin adapters and instruction manual.
- 9V battery or vehicle powered.



FI-40

Charging System Analyzer with Cart

- Tests charging and starting systems on vehicles with 6 or 12 volt batteries.
- Carbon pile loads alternator output.
- Inductive amp probe measures output and indicates defective diode/stators.
- Checks voltage regulation.
- Battery test applies up to 500 amp test current and measures voltage; timer sounds after 15 seconds of load. Good for 6 to 12 volts.
- Checks current draw and cable/solenoid resistance voltage drops.
- "Load-on" warning lamp.
- Diode/Stator Lamp - lights whenever amps probe senses ripple.
- Inductive amp probe - 1" x 3/4" opening clamps around large battery cables and wire bundles.



FM-73-3

Handheld Digital Meter

- Basic multimeter functions, plus a 10 Amp current range.
- Volts, ohms, continuity, diode test.
- Touch Hold® to capture readings.
- 10 Megohm input impedance, analog bar graph.
- Sleep mode.
- 600V, AC/DC maximum voltage between any terminal and earth ground.
- Protected from overvoltage transients to 4kV.
- Includes meter, FM-TL75 right angle test leads, yellow holster, 9V battery and instruction sheet.

FM-TL75 Repl. Test Leads Set



KA-3000

Digital Multimeter

- Designed with 10 megohm impedance for use with high-tech electronics.
- Ranges/Functions include: 320-32M Ohms, 320μA-15A DC amps, 320mV-1000V DC volts, diode check, continuity, duty cycle, 4, 5, 6 & 8 dwell, 0-8000 tach, 3.2V-750V AC volts, 32mA-320mA DC current, 320μA-15A AC amps, 32mA-320A AC current, frequency, temperature.
- Has autorange, bar graph, DIS on tach, data hold, low battery indicator, hold/capture/freeze.
- Auto power off, auto reverse polarity, audible tone and overload protection.
- Color coded probes, inductive pick up, temperature probe, alligator clips, detailed manual, holster and carry case; 9 volt power.



ES-C501

Digital Mini Multimeter

- This digital mini multimeter has the compact design and the functions needed for overall convenience.
- Protective holster included.
- 16 test ranges, 6 functions.
- 3-1/2" digit LCD display.
- Fuse protected, safety leads and jacks.
- Removable test leads.
- Battery included.
- Safety leads and receptacles.
- Diode test.
- Testing Ranges: DC Volts: 0-200mV, 2000mV, 20V, 200V, 500V; AC Volts: 0-200V, 500V; DC Amps: 0-2mA, 20mA, 200mA; Ohms: 0-200 Ohms, 2000, 20K, 200K, 2000K; Battery Test: 0-9V; Diode Test: 0-2000 Ohms.

ES-645 .2A Replacement Fuse



FM-88

Hand Held Digital Multimeter

- Volts, ohms, amps, continuity and diode test.
- Milliseconds pulse width measurements.
- RPM measurements with inductive pickup.
- Min./Max./Avg. recording.
- Frequency and duty cycle measurements.
- Lo-Ohms function, Change Alert™, Smoothing™ features.
- 10 megohm input impedance, backlit display and sleep mode.
- Includes: Multimeter, protective yellow holster with Flex-Stand™, 9V battery (installed), inductive pickup for RPM measurements, flexible test leads, industrial test probes, large jaw alligator clips, User's manual, and quick reference guide in a hard-shell carrying case.

FM-AC85A Large Jaw Alligator Clips Set
FM-RPM80 Inductive Pick-Up



FM-78

Automotive Meter

- Volts, amps, continuity and resistance.
- Frequency, duty cycle and direct reading dwell.
- Temperature in °F (range -40° to 1839°) or °C (range -40° to 999°).
- MIN/MAX recording works with all meter functions.
- Precision analog bar graph.
- Use with optional FM-RPM80 Inductive Pickup accessory (not included) for both conventional and DIS ignitions.
- 10 megohm input impedance to protect sensitive automotive computers.
- Includes: Multimeter with protective holster with Flex-Stand™, 9V battery (installed), FM-TL75 test leads, alligator clips, bead thermocouple probe, thermocouple adapter, quick reference guide and User's manual.

FM-TL75 Repl. Test Leads Set
FM-RPM80 Inductive Pick-Up (Optional Accessory)



WARNING!

Working with batteries can be hazardous. Sparks can occur when connecting or disconnecting leads. Read operating instructions thoroughly on tools and equipment before use. Wear safety goggles.

ES-C585

Deluxe Automotive Meter

Professional grade tool used for diagnosing electrical, computer and engine problems on any vehicle. • 45 Test Ranges, 12 Test Functions. • Analog Bargraph display and large digital display. • Includes two sets of test leads, RPM pick-up, temperature probe, protective holster and instructions manual, plus zippered storage case. • 10 Meg/Ohm Input Impedance. • Fuse protected, safety leads and jacks. • Testing capabilities: DC Volts: 0-320mV, 3.2V, 32V, 320V, 1000V; AC Volts: 0-3.2V, 32V, 320V, 750V; DC Current: 0-320uA, 3.2mA, 32mA, 320mA, 10A; AC Current: 0-320uA, 3.2mA, 32mA, 320mA, 10A; Ohms: 0-320, 3.2K, 32K, 320K, 3.2M, 32M; RPM (Tach): 0-3200 RPM, 12,000 RPM; Dwell Angle: 3 cyl, 4 cyl, 5 cyl, 6 cyl, 8 cyl; Duty Cycle: 0-90%; Frequency(Hz): 0-320Hz, 3200Hz, 32kHz; Temperature: -20C to 320C, -20C to 750C -4F to 320F, -4F to 1400F; Diode Test: Test current 0.6 mA, Open circuit voltage 3.0V • Continuity Audible Beep.

ES-621 10A Replacement Fuse

ES-625 .5A Replacement Fuse



ES-C325

Digital Automotive Tachometer

• Unique tachometer capable of quick RPM measurements on any automotive engine, For small engines, and other types of ignition systems with a spark plug wire. • Completely wireless - no cables, no wires and no fragile antennas to break off. • For tune-up and other diagnostic work where accurate RPM readings are required. • Clamp over any spark plug wire and get accurate engine RPM for engines up to 8 cylinders. • Read RPM's on both conventional or DIS ignition systems. • Data Hold function, 2000 Count LCD display and low battery indication. • 9 Volt Battery & Instructions Included • TEST RANGES: 4 Cycle x 1: 600-2000 RPM; 4 Cycle x 10: 600-12000 RPM; DIS x 1: 300-3200 RPM; and DIS x 10: 300-6000 RPM.



ES-C321

Versa Tach Digital Small Engine Tachometer

• Specifically designed for use on small engine ignitions. • Measures RPM on outboard, snowmobile, personal watercraft, ATV, small engine, industrial and automotive engines. • Features 0-10,000 RPM and 0-20,000 RPM Test Ranges. • Spark indicator LED indicates presence of secondary coil output and will detect misfire. • Engines Tested: 4 cycle, 2 cycle (4 cycle or DIS), 2 cycle (2X firing), and 2 cycle (3x firing). • Wireless feature provides for quick RPM checks and readings where secondary spark plug wires are inaccessible. • Inductive pick-up provides noise free, accurate tachometer readings with 1200°F, heat protected leads of up to twenty feet. • Capacitive clip on pick-up allows for hands free engine adjustment where secondary wires are too short to allow entry of an inductive pick-up. • Includes inductive pick-up, capacitive pick-up, carrying case.



OW-C3514

Automotive Meter

• Accurate ms-pulse width function to test on-time for fuel injectors, IAC motors and transmission controls. • Inductive rpm for 1-8 cylinders (2- or 4-stroke), inductive clamp included in the kit. • Direct dwell readings and duty cycle. DC volts and mV, AC volts, ohms, continuity, frequency. • Four step adjustable $\pm$ trigger. • 4-1/4 digit display. Analog bar graph, 41 segment. • Auto ranging, automatic power off and data hold features. • 10 MEGOHM impedance protects automotive computers circuitry. • Rugged construction for years of use under the harsh automotive shop conditions. • Weight: 1 lb., 9 oz. • Includes analog/digital multimeter, protection holster with stand, safety-designed test lead set, inductive pickup, 9V battery (installed) and user's manual.



ES-C685

Current Probe/ Multimeter with Low Amps Capability

• Measure current on parasitic drains, fuel injection systems, fuel pumps, charging systems, electric motors and more. • Also measures AC/DC volts, resistance, frequency, duty cycle, capacitance, diodes and continuity. • Capable of measuring as low as 10 milliamps. • Features-35 Testing Ranges, Auto Power Off, Auto-Ranging, Data Hold, Continuity Beep, Overload Protection, 10 Meg/Ohm Impedance. • Carrying case and 9 Volt battery included. • TEST RANGES: DC Amps: 0-40A (res .01A), 200A (res .1A); AC Amps: 0-40A (res .01A), 200A (res .1A); DC Volts: 0-400mV, 4V, 40V, 400V, 600V; AC Volts: 0-4V, 40V, 400V, 600V; Ohms: 0-400, 4k, 40k, 400k, 4M, 40M; Frequency: 0-10Hz, 100Hz, 1000Hz, 10kHz, 100kHz, 1000kHz, 10MHz; Duty Cycle: 0-.1%-99.9%; Capacitance: 0-4nF, 40nF, 400nF, 4uF, 200uF; Diode: Diode Test.



WARNING!

Working with batteries can be hazardous. Sparks can occur when connecting or disconnecting leads. Read operating instructions thoroughly on tools and equipment before use. Wear safety goggles.

OW-C3513

Pocket DVOM

• Displays DC and AC voltage, ohms, and continuity • CE and UL listed • 3200 count LCD with bar graph • Auto ranging feature, automatic power off, data hold • Convenient carrying case with probe storage, low battery indicator • Weight: .25 lbs.



ES-C703

Small Engine Compression Tester

• Tester screws into 14 mm spark plug hole on outboard and other small engines. • Use to check for low compression. • Measures up to 200 psi or 14 kgs. • Will help diagnose engine problems such as: burnt valves, scored cylinders, leaking head gaskets, tight tappets, broken valve springs, broken rings, or damaged pistons.



CORNWELL DIGITAL MULTIMETERS

Features:

- Equipped with a 3-1/2 digits Liquid Crystal Display.
- 9V Battery for power - Low battery voltage display.
- Operating temperature: 0°C to 40°C (32°F - 104°F).
- Maximum working humidity 75%.
- Storing temperature: -10°C to 50°C (14°F - 122°F).
- Overload protection.

CED-100

Cornwell Digital Multimeter

- Can measure DC Voltage, AC Voltage, DC Current, AC Current, Resistance, Batteries, Diode and Continuity check.
- Can be used for laboratory testing, different workshop, industry repairing, etc.
- Weight: Approximately 250 grams (excluding test probes).

CED-100P1 Fuse

CED-100P2 Fuse

CED-204P Lens



CED-300

Cornwell Automotive Digital Multimeter

- Tests both Tach and Dwell of 3, 4, 5, 6 and 8 Cylinder Engines.
- Tests AC, DC Voltage, AC, DC Current, Resistance, Transistor and Diode.
- 32 Ranges to select range and function.
- Auto Polarity Indicator
- Auto power off
- Weight: about 270 grams (excluding test leads)

CED-300P1 Fuse

CED-300P2 Fuse



FI-927

AC/DC Amp Probe

- High Amps Probe measures from 1 Amp to 600 Amps AC or DC.
- Connects to any digital multimeter with banana jacks and a millivolt scale.
- Connects to any graphing multimeter or labscope with banana jacks or BNC connectors.
- Large 1-1/2" jaw opening.
- Zero knob makes it easy to adjust for accurate DC current measurements.
- Internal 9 volt battery provides power to unit.



FI-928

Amp Probe Kit

- Use with digital multimeter or LabScope having banana jacks or BNC inputs and is capable of measuring Millivolts.
- Contains low amps probe that measures from 0 to 20 amps AC or DC and high amps probe that measures from 1 to 600 amps AC or DC.
- Adjusting the zero of the amp probe compensates for magnetic influences in the engine compartment.
- Internal 9 volt battery provides power.
- Three power modes allow long term tests, or autpower off to conserve the battery.
- Includes a nylon pouch and BNC adapter to allow connection to BNC or Banana Jacks.



OW-3820-06

Amperage Clamp

- Use with **OW-C3820** to measure both AC and DC currents from 0 to 60 Amps.
- Applications include fuel injectors and fuel pump current measurement.
- Hook up to fuel pump to look at its mechanical integrity in a real life situation as it is running on the car; no need to remove the pump unnecessarily.
- Can also look at parasitic draws causing battery discharge without disconnecting any leads.



FM-80TK

Thermocouple Module

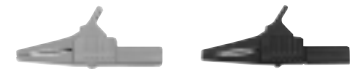
- Converts multimeters with a mV range into digital thermometers.
- Temperature range: -58°F to 1832°F (-50°C to 1000°C).
- Converts K-type thermocouple signals into mV output.
- Connects to DMM via standard banana plugs.
- Switch selects °F or °C.
- Includes one 80PK-1 Beaded Probe.



FM-AC285

Large Jaw Alligator Clips Set

- Insulated banana-jack style.
- Curved jaw opens to 20mm.
- CAT III, 600V, 10A.
- One red, one black.



FM-AC89

Insulation Piercing Clip

- Heavy duty, plunger style, safety grip operation with insulated jaws.
- Small pin pierces 30 to 14 AWG insulated wire.
- CAT III, 1000V, 5A; CAT IV, 600V, 5A.



FM-RPM80

Inductive Pickup

- Included in, and for use with the **FM-88** Hand held Digital Multimeter.
- Available as an optional accessory for the **FM-78** Automotive Meter.
- For convenient and accurate RPM readings.



FM-TL220

Test Lead Set

- Versatile leads; interchangeable tips; work with other probe tips too.
- Recommended for automotive, electrical and HVAC applications.
- Set consists of silicone-insulated Test Leads (1 red, 1 black), stainless-steel industrial test probes (1 red, 1 black) and industrial alligator clips (1 red, 1 black).
- 63" (1.6m), 1000V, 10A maximum rating.
- Shrouded right-angle connectors.



FM-TL75

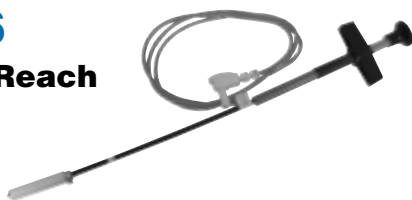
Hardpoint Test Lead Set

- Extremely hard alloy tips resist wear.
- Distictive comfort grip probes.
- Economical PVC insulated leads.
- CAT III, 1000V, 10A; CAT IV, 600V, 10A.
- 1 red and 1 black, 48" (1.2m).



WN-77006

Stinger™ Long Reach Piercing Probe



- Easily probe wires buried deep in the engine compartment, under the dashboard or behind body panels.
- Semi flexible 16" long probe easily pierces 14 to 22 gauge insulation.
- Piercing mechanism catches, centers and penetrates the wire with one-handed operation.
- Double insulated 4' test lead with molded strain relief connector.

WN-TLM-01

Test Lead Master Kit™

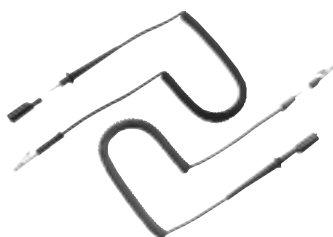


- Assortment of test leads, test clips and accessories assembled in one versatile electric and electronic testing kit.
- Quality storage case, which fits in tool box, keeps leads and clips organized.
- Use for under dashboard work, for engine compartment work, for bridging electrical circuitry utilizing the patented "Bed of Nails" alligator clips and for multimeter lead replacement.
- All test leads are neoprene cord-coil with high memory, heat and oil resistant and made to military specifications.
- Includes: CPT-01 Cockpit Tester, CPT-02 Battery Adapter, WN-GTL-01 Great Test Leads, GJL-01 Great Jump Leads, plus an assortment of alligator clips and adapters.

- WN-WAE50B** Black Screw On Alligator Clip
- WN-WAE50R** Red Screw On Alligator Clip
- WN-WAE52B** Black Slip On Alligator Clip
- WN-WAE52R** Red Slip On Alligator Clip
- WN-WAE56B** Black Screw On Bed of Nails Clip
- WN-WAE56R** Red Screw On Bed of Nails Clip
- WN-WAE58B** Black Screw On Banana Plug
- WN-WAE58R** Red Screw On Banana Plug

WN-GTL-01

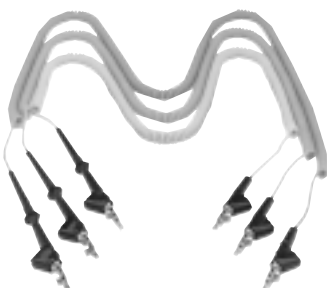
"GREAT TEST LEADS™"



- Non-slip ribbed prodding probe of flame retardant plastic has stainless steel point.
- Coiled neoprene cords stretch to over 60 inches.
- Removable alligator clips for each end allow these leads to be used as jump leads.
- Fits all meters using standard banana plug jacks.

HI-VIZ JUMP LEADS™

- Designed to easily and safely pierce a wire and work hands-free on electrical troubleshooting jobs.
- One end features high quality alligator clips featuring the "bed of nails" to pierce small gauge wire and a heavy piercing point for heavy gauge wire.
- Other end has a prodding probe with a stainless steel point and screw-on "bed of nails" alligator clips.
- Both ends are connected with neon color multi-flex coiled cords which stretch and contract as needed.



PART NO.	DESCRIPTION
WN-HVO-16	16 ft. Orange Jump Leads
WN-HVR-20	20 ft. Red Jump Leads
WN-HVG-24	24 ft. Green Jump Leads

KA-2566

Mini Coil Cord Circuit Tester

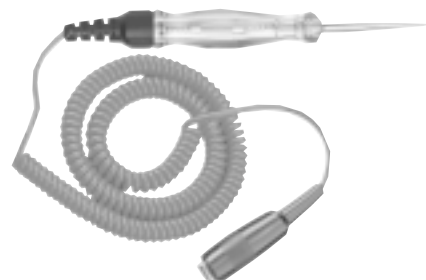


- Locate hot circuits and troubleshoot primary circuits on all 6 and 12 volt systems.
- Heavy duty lead and stainless steel probe for fast, safe, and accurate low voltage testing.
- Small, ergonomic design for use in tight areas.
- Needle-sharp, stainless steel probe for easy wire piercing.
- 12 ft. coil cord test lead made from durable, high visibility, heat and oil resistant material.
- Threaded probe to add other screw-on type accessories.
- Bright, high intensity bulb for easy visibility.
- Molded strain relief at both ends prevents broken wires.
- Heavy duty clip.

KA-600-728 Bulb

KA-2568

Coil Cord Circuit Tester

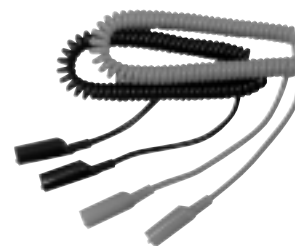


- Locate hot circuits and troubleshoot primary circuits on all 6 and 12 volt systems.
- Heavy duty lead and stainless steel probe for fast, safe, and accurate low voltage testing.
- 12 ft. coil cord test lead made from durable, high visibility, heat and oil resistant material.
- Bright, high intensity bulb for easy visibility.
- Molded strain relief prevents broken wires.
- Heavy duty clip.
- Heavy duty, stainless steel probe.

KA-2514

Twin 5 Ft. Jumper Leads

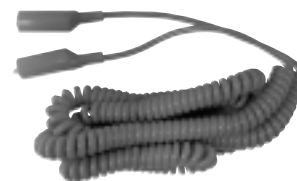
- Superior memory retention and resistance to grease and oil.
- Coil cords constructed from high quality polyurethane.



KA-2515

24 Ft. Jumper Lead

- Superior memory retention and resistance to grease and oil.
- Coil cords constructed from high quality polyurethane.



KA-2516

Twin 5 Ft. Multimeter Lead Set

- Superior memory retention and resistance to grease and oil.
- Coil cords constructed from high quality polyurethane.
- Includes two multimeter probes, two banana plugs and four alligator clips.



KA-2517**Twin 5 Ft. Multimeter Jumper Lead Set**

- Superior memory retention and resistance to grease and oil. • Coil cords constructed from high quality polyurethane. • Includes two multimeter probes, two banana plugs, two bed-of-nails and four alligator clips.

**KA-2518****Twin 5 Ft. Piercing Test Lead Set**

- Superior memory retention and resistance to grease and oil. • Coil cords constructed from high quality polyurethane. • Includes two banana plugs and two bed-of-nails.

**FI-911****Wire Piercing Tool Set**

- Ideal for multichannel scopes and multimeters. • Four pack (red, blue, black, and yellow) of unique wire piercing tools. • Small enough (2.8"L x 0.6"H x 0.5"W) to fit in hard to reach areas. • Large jaw opening and highly machined, fine threaded screw allows piercing of wires from 1mm to 8mm in diameter. • Plug any banana jack equipped lead into the back of claw. • V-notch securely holds the wire in place to make piercing the wire simple and effective. • Packaged in a heavy duty nylon pouch.

**TH-392****GM Micro-Pack and Metri-Pack Jumper Wire Sets**

- Provide access for testing all components using either Micro-Pack or Metri-Pack connectors on GM vehicles 1985 and up. • Enables technician to "T" volt/ohm meter in harness for diagnosing computer and sensor problems. • 10 color coded jumper wires included with 12" test leads.

**Insulation Piercing Sets**

- Needle point pierces insulation of heavy-duty wire and cable up to .125" diameter for accurate contact. • One-piece, nickel-silver hook contact is spring loaded. • Ideal for contact through insulation. • Durable nylon housing is color coded.

PART NO.	DESCRIPTION
EZ-619XJL-18R/B	Includes 1 Red and 1 Black Insulation Piercing Macro-Hook to Standard Alligator Clip Lead Assembly. Wire lead length: 18".
EZ-633XJL-48R/B	Includes 1 Red and 1 Black Insulation Piercing Macro-Hook to Shrouded Standard Banana Plug. Wire lead length: 48". Fits FLUKE meter.

TH-387**Ford E-Core Coil Adapter**

- Test adapter connects to coil and coil harness. • Allows hookup of test equipment. • Ford Coil Adapter fits E-core coils on vehicles with Thick Film Ignition (TFI) systems. • Features brass construction for conductivity, foot long test leads and tough nylon shell.

**TH-388****GM Micropak Coil Adapter**

- Connects to coil and coil harness on GM Micropak coils from 1985 on up (except DIS). • Test leads are 12" long for easy hookup of test equipment. • Made of brass for excellent conductivity, with tough nylon shell.

**TH-437****Toyodenso (TEC) Coil Adapter**

- Fits '87-current Honda and Acura vehicles with TEC ignition systems. • Allows convenient hookup of test equipment between ignition coil and harness for ignition system diagnosis. • Tough nylon connector. • 1 foot long test leads with test clips provide easy hookup. • Special molded connector eliminates hookup errors. • Provides excellent conductivity. • Eliminates makeshift methods and allows connection to both positive and negative side of coil.

**WN-CPT-04****Extra Long Battery Adapter**

- Adapter with 12 foot cord designed to be used with WN-CPT-01 under the hood. • Battery clips fasten to battery terminals. • WN-CPT-01 plugs into the female end. • Can also be used to supply power to any 12 volt equipment (scanners, car phones, lights, etc.)

**LS-22700****GM Code Retriever Key**

- Retrieves trouble codes from GM vehicles. • Retrieves codes from engine computer, rear wheel anti-lock brake computer and four wheel anti-lock brake computer. • Key probes jump terminals on Assembly Line Data Link Connector (ALDL) to activate trouble codes. • Refer to a repair manual for proper code interpretation.

**OW-7739****GM Code Retrieval Key**

- Jumps between A & B terminals on ALDL connector to retrieve trouble codes from ECM on late model GM's.

**TH-435****GM Anti-Lock Brake Code Retrieval Tool**

- Access ABS trouble codes fast. • Fits GM vehicles with ABS from 1989 to 1995. • Two way key connects to either "A to G" or "A to H" terminals at ALDL connector. • **Not for OBDII equipped vehicles.**



RB-295A

MEMOR-EZE Battery Powered

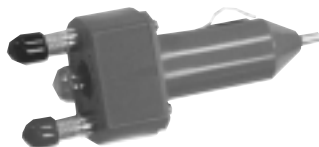
- Designed to maintain the memory to the on-board vehicle computer when the power source is disconnected.
- Prevents loss of certain driveability codes, keyless entry codes, digital radio settings, cellular phone settings, and other memory related functions.
- Prevents loss of radio function in anti-theft radio systems.
- 9-Volt alkaline battery (not included).



LS-32150

Power/Ground Outlet

- Provides an electrical ground and power source from the vehicle.
- Plugs into cigarette lighter or power accessory receptacle for a ground and a power source on the dash.
- Plug light will come on to signal that it is connected and that both power & ground are available at the posts.
- Connect to the positive (+) terminal for power.
- For electrical ground, attach ground wire from instrument to be grounded to the negative (-) terminal.



OW-3397

Fuel Injector Tester

- Check and balance fuel injectors.
- Test fuel injector coil windings under load.
- Detects intermittent fuel injector coil faults.
- Adjustable current output.
- Works on both throttle body (TBI adapter included) and multiport fuel injectors.



OW-7200

Charging System Analyzer

- Pocket sized analyzer for diagnosing charging system problems.
- Designed for vehicles with 12-volt, positively or negatively grounded alternator charging system.
- Determines if battery and regulator are working properly, singles out open or shorted rectifier, rotor field, stator or winding trio.
- Solid state design provides instant read-outs.
- Comes complete with clip-on connectors and operating instructions.



KA-2531

Fuel Injector and Harness Tester

- Use with a fuel pressure gauge to check fuel injectors and their wiring harness.
- Finds clogged or leaking injectors.
- "Noid" light tests faulty driver signal.
- Identifies sticky or sluggish injectors.
- Tests injector continuity.
- Features color-coded battery clips, injector adapter to test most systems, harness adapter.
- Powered by vehicle battery.
- Instruction manual details hook up and test procedures.



KD-2423

Current Indicator

- Measures alternator and starter DC current in 6, 12 and 24 volt systems.
- Indicates direction of current flow without breaking into lines.
- Starter current scale: 600-0-600. Alternator current scale: 75-0-75.
- Clip meter onto wire.
- Crank engine to check starter current.
- Run engine to check alternator current.



LS-55200

Fuse Puller

- For easy removal of both glass and blade-type automotive fuses.
- Removes stuck or broken fuses.



TH-304

FULL-FIELDER® Alternator Test Adapter

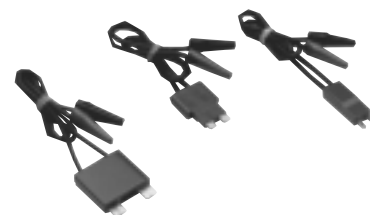
- Simplifies on-the-car alternator testing; mistake-proof; unbreakable.
- Energizes field circuit so full output can be measured.
- Bypasses voltage regulator to isolate charging problems.
- Accepts standard non-transistorized Delco, Ford and Chrysler voltage regulator units.



TH-441

Fuse Block Test Kit

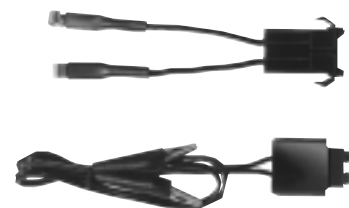
- Fits automotive electrical fuse boxes using ATO, Mini, or Maxi fuses.
- Provides access to power source to check for voltage, opens, shorts, amperage draw from selected circuits, etc.
- Tough, nylon molded connector easily adapts to fuse box.
- Plated contacts for excellent conductivity.
- 1' long leads allow easy hook-up of test equipment.
- Eliminates backprobing and other makeshift methods that can damage wiring or connector.
- Easy, professional way to test electrical circuits at fuse box.
- Kit Includes: ATO Fuse Block Adapter, Mini Fuse Block Adapter, and Maxi Fuse Block Adapter.



TH-384

Universal Fuse Block Test Adapter

- Test fuse block circuits.
- Allows use of test meter on both glass tube and blade-type fuses.
- Glass tube-type fuse adapter works with all glass fuses.
- Includes 2 ft. of test wire.



WARNING!

Wear safety goggles while using electrical equipment. Read operating instructions thoroughly before using testers and equipment.

CORNWELL TIMING LIGHT FEATURES:

- ELUMINATOR® optics - flashtube reflector projects nearly all the output through the lens for useful illumination.
- Inductive spark pickup molded from reinforced, high temperature, solvent-resistant plastic. Plugs in for easy replacement.
- Housing constructed of electrically insulating plastic for use in shop environment.
- Narrow extended barrel for light beam projection between engine belts and brackets.
- Comfortable handle-grip & compact.
- Neoprene insulation, 16 gauge copper wire, 5 foot lead length, and sturdy insulated clips.
- TEMPERATURE: OPERATING: 0 to 122°F, (-18 to 50°C); STORAGE: -40 to 180°F, (-40 TO 80°C).
- Made in the U.S.A.

FI-84

Cornwell Digital Tach-Advance Timing Light

- Bright single digital display shows RPM or Degrees Advance.
- Advance: 0 to 90° (4 cycle); 0 to 45° (2 cycle).
- Tachometer: 400 to 9,990 RPM.
- Power Requirements: 12V vehicle battery.
- Molded storage case holds light, manual and leads.

FI-X006-81 Storage Case

FI-X008-01 Inductive Spark Pick-up



FI-80

Stealth Black Timing Light

- Suitable for timing small engines, industrial engines, and car engines.
- Adaptable power input allows testing on 6 to 12 volt systems.
- Flashes well over 10,000 RPM.
- Power requirements: 12V vehicle battery.
- Optional storage case available.

FI-X006-81 Storage Case

FI-X008-01 Inductive Spark Pick-up



FI-82

Stealth II Black Timing Light

- Ideal for high performance engine timing advance measurements.
- Large calibrated 60° dial provides 1.5° accuracy and easy operation.
- For distributorless or distributor ignitions.
- Advance: 0 to 60° (4 cycle); 0 to 30° (2 cycle).
- Power Requirements: 12V vehicle battery.
- Optional storage case is available.

FI-X006-81 Storage Case

FI-X008-01 Inductive Spark Pick-up



ES-C130

Self-Powered Inductive Timing Light

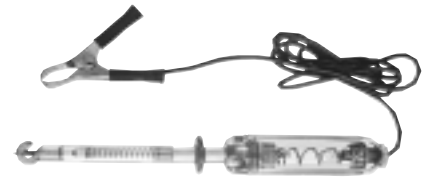
- Use to set timing on outboard, snowmobile, personal watercraft, ATV, small engine, industrial and automotive engines.
- Battery operated timing light accurate up to at least 14,000 RPM.
- Self-powered by two (2) "D" cell batteries - no need for connection to car's battery for power.
- Bright flash at all speeds.
- Break proof and burn proof aluminum pick-up.
- For 2 or 4 cycle engines, all ignition systems.
- Protective sleeve withstands high temperatures (1200°F).



TH-121

WIREHAWK® Circuit Tester

- Use for 12V/24V circuits, connections, fuses and 2-cycle engine timing.
- Requires just one hand to test circuits in hard-to-reach areas.
- Works two ways: Pierces wire with unique hook design or used as an "ice-pick" type tester.
- Has 16 gauge, 44" ground wire with 50 amp clamp.



TE-50

Check Point Circuit Tester

- Locates shorts, ground and open circuits.
- Checks all 6 and 12 volt systems.
- Use with power ON.
- 48" ground wire.

TE-21007 Replacement Bulb



TE-27

Heavy Duty Circuit Tester

- Checks 6 and 12 volt systems.
- Heavy duty grounding clip with insulating boot.
- Five feet of tough flexible rubber wire retained in spring supported strain relief.
- Lead wire permanently attached.
- Clear plastic handle makes bulb highly visible.

TE-27010 Replacement Bulb



TE-29

Heavy Duty Mini Circuit Tester

- Compact design; use in confined areas to troubleshoot 6/12 volt electrical circuits.
- Test light circuits, turn signals, horns, and gage circuits; locates broken wires and bad connections; finds shorts, grounds, and open circuits.
- Special overbite alligator clip on end of 6 ft. ground wire stays put; remains flexible at cold temperatures.
- Insulated wire with tough, flexible rubber; plastic strain relief; impact and chemically resistant housing.
- Sharp, nickel plated, high carbon steel probe.



WN-ML10

Mini 6/12/24 Volt Circuit Tester

- Quickly tests 6, 12 and 24V high/low current circuits, relays, switches, motor circuits, etc.
- Computer safe!
- Varying brightness identifies different voltage levels.
- Sleek test probe style handle designed specifically for circuit testing functions; easy to grip and fits areas with limited access.
- "Intruder" probe tip accepts multiple adapters and pierces the toughest wire insulation.
- 2 foot cord stretches to 8 foot.



WN-CVVT-01

Cornwell 6/12 Volt Circuit Tester



- Ideal for testing 6/12V, high current circuits such as relays, switches, motor circuits and more.
- Sleek test probe style handle is easier to grip and fits better in areas with limited access.
- Great for engine compartment and under-dash testing!
- Bulb brightness varies depending on the voltage probed.
- 8 foot coil cord retracts for easy storage.

WN-VVT01-5 Bulb

WN-CVVT-02

Cornwell 6/12/24 Volt LED Circuit Tester



- Immediately identify hot, grounded or open circuits without swapping leads on all 6, 12 and 24V circuits.
- Computer safe! Great to test and monitor computer controlled devices such as solenoids and relays.
- Sleek test probe style handle is easier to grip and fits better in areas with limited access.
- Great for engine compartment and under-dash testing!
- 10 foot coil cord retracts for easy storage.
- Battery adapter included.

WN-VVT01-5 Bulb

PW-PP19FTC

Power Probe 1 Kit



- A multitude of testers in one tool: circuit test light, continuity tester, jumper lead set.
- Determines good or bad grounds instantly.
- Powers up components.
- Features the **PW-PP-19FT** Power Probe I and includes 20 ft. extension for those longer vehicles such as motor homes, trailers, etc., cigarette lighter adapter, 9" extension probe and carrying case.

PW-PP-19FT Power Probe™ I

PW-PP219FTC

Power Probe 2 Kit



- A multitude of testers in one tool: circuit test light, continuity tester, jumper lead set.
- Powers up components.
- Audio Tone (Beeper): Constant tone for positive circuit; Pulsing tone for negative circuit.
- Headlight to illuminate dark test areas such as under dashes, hoods, or in trunks.
- Determines good or bad grounds instantly.
- Features the **PW-PP219FT** Power Probe II and includes 20 ft. extension for those longer vehicles such as motor homes, trailers, etc., cigarette lighter adapter, 9" extension probe and carrying case.

PW-PP219FT Power Probe™ II



WARNING!

*Wear safety goggles while using electrical equipment.
Read all instructions before using tester and equipment.*

PW-PPECT2000

Short/Open Circuit Tester



- Pinpoints short and open circuits through plastic, panels, carpet, molding and more.
- Consists of two units: a "SMART" transmitter and a "SMART" receiver along with four of the most common adapters to connect to any electrical circuit on a vehicle.
- Detects immediately whether a circuit is shorted or open.
- Reception threshold feature allows the user to lock in a preferred distance from the circuit, giving flexibility.
- The "SMART" receiver eliminates guesswork by showing the direction to the short circuit.

PW-PPACC01

Power Probe™ Accessory Kit



- Includes: 20 foot extension lead for extra length when working on trucks, RVs, and extra long vehicles, cigarette lighter adapter for plugging the Power Probe™ into a 12 volt cigarette lighter socket, 9" extension probe, and rugged, protective case to store the Power Probe™ circuit tester and accessories.

WN-76000

Electronic Test Light



- Ideal for under dash and engine compartment testing.
- Designed specifically for the automotive professional with a high intensity headlamp and super sharp tip that pierces the toughest wire insulation.
- Indicates: Ground, 6/12/24V
- Computer and airbag safe.

WN-76100

Power/Ground Injector



- Fast and versatile! Verifies circuits and component operation for window and lock motors, fuel pumps, cooling fans, lights, horns, solenoids, relays, and most other power accessories.
- Indicates: 6/12/24V
- Thumb switch applies power or ground through the tip.

WN-76200

Automotive Signal Tester with Logic



- Designed specifically for testing computer-controlled vehicles. Test virtually any circuit on the vehicle.
- The all-in-one quick check tool for no-starts. Use to verify primary and secondary ignition, pick-up sensors, fuel injectors, fuel pumps, and idle speed control circuits.
- Ideal for electrical/electronic accessory installers. Helps prevent improper wiring by distinguishing ground circuits from low voltage computer circuits.
- Indicates: Ground, 5V Reference, 6/12/24V, Pulsing Signals
- Computer and airbag safe.

WN-76560

Coil on Plug Quick™ Probe



- Designed to test for Kilovolt and Arc (glow) Duration output.
- Eliminates the need for back-probing coil wires and disassembly to test at the coil connector or spark plug.
- Verifies the proper firing of a Coil on Plug ignition coil and spark plug simply by pressing the probe against the coil.
- Includes super bright KV and Arc indicator LEDs, 9" signal receiver probe, and user guide.
- Battery operated.
- Toll-free tech support.

WN-16970-191 7-3/8" Insulated Probe

WN-16970-192 Signal Receiver Pad



WN-77202

Spade Terminal Probe Adapter Set

- Tips are designed to be a perfect fit for most automotive connector pins.
- Great for "hands free" jumper wire testing.
- Tee Connection Adapter provides a solid connection for road testing, acts like a universal breakout box for virtually any 2 or 3 pin connector on the vehicle.
- Includes 22 assorted spade terminal tips, 2 screw on banana plug test lead adapters and 3 Tee adapters.



WN-77203

Round Terminal Probe Adapter Set

- Tips are designed to be a perfect fit for most automotive connector pins.
- Great for "hands free" jumper wire testing.
- Tee Connection Adapter provides a solid connection for road testing, acts like a universal breakout box for virtually any 2 or 3 pin connector on the vehicle.
- Includes 26 assorted round male and female terminal tips, 2 screw on banana plug test lead adapters and 3 Tee adapters.

WN-76400

EFI Quick Probe



- Eliminates hunting for the injector wires or upper plenum disassembly to test at the connector.
- Specifically tuned to detect the vibration frequencies caused when the fuel injector pintle snaps open.
- Super bright LED strobe allows the user to visually monitor the injector pintle for consistent firing or misfires. LED strobe flashes each time the injector opens.
- Battery operated main unit with removable 7" Probe Tip. Probe tip allows access to virtually any injector even if they're buried under the upper intake plenum.

WN-CPT-04

Extra Long Battery Adapter



- Professional quality female cigarette plug to battery adapter.
- Coil cord extends to over 12 feet and retracts for easy storage.
- Can be used to supply power to any 12 volt equipment.

TE-21250

FINGER SAVER® Wire Piercing Guide



- Prevents stabbing finger when using automotive circuit testers.
- Quickly, easily and safely guides the pick point of any circuit tester in the center of all primary automotive electrical wire.
- Holds circuit tester in position allowing technician to work hands free.
- Impervious to gasoline, oil, thinners and other shop chemicals.
- Stores on ground wire of circuit tester.

TE-22900

Jumper Twins Test Leads



- Two 30" leads of highly insulated wire.
- Color coded - black and red.
- For "jumping" any part of the electrical system.

TE-23100

Extra Heavy Duty Test Leads



- Two (2) 48" test leads.
- Full flex wire with heavy insulation.
- Heavy duty jacketed alligator clips.
- Ideal when working on late model cars.

CLS-ST100

Cornwell In-line Spark Tester



- Quickly diagnose problems with all ignition systems including distributorless ignitions.
- To use, connect the tool between the spark plug and the plug wire.
- Double-ended to offer a straight boot and a 90° boot for confined areas.
- With the engine running, the tool flashes a mirror image of ignition spark.
- Shipping weight: 5 oz.

LS-20680 Bulb

SF-FF300

Fault Finder

- Troubleshoot electrical circuits, trace short circuits, broken wires or connections, current drains without piercing or making contact with wires or connectors.
- Complete most diagnostics without untying harnesses or opening conduits.
- Consists of transmitter and receiver, designed to work together, in a case.
- Audio and visual features indicate proximity of wire being traced.
- Flexible probe.
- Rugged solid state construction; Non-contact technology.



SPECIFICATIONS

Transmitter

Voltage Range 6 to 36 volts
Power Source 9 volt alkaline battery
Connector Two universal micro-clips with auto polarity; 12" long cable

Receiver

Range 0 to approx. 2" for short circuits
..... 0 to approx. 0.5" for open circuits
Steel Probe Insulated flexible 10" gooseneck
Power Source 9 volt alkaline battery; Auto Power Off

SF-CT8002

Professional Cordless Circuit Tester



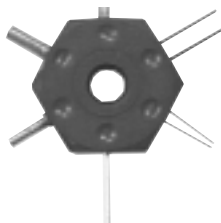
- Ideal for autos, trucks, trailers, RV's and boats.
- Solid state electronic voltage detector does not need wire or clip connector to ground.
- Safe to use around automotive microcomputer controllers due to negligible current draw (about 20 microamps).
- High impedance safe with auto electronic control modules.
- Cordless, 1-1/2V "N" batteries installed.
- Operates on positive DC voltages between 3 volts and 24 volts in battery powered systems.
- Chrome plated metal construction with buzzer, LED indicator light for audible and visual signals, and vibration indicator.
- Tester **MUST NOT** be used on AC electrical systems or any voltages higher than 24 volts.

RV-810-2 Repl. "N" Batteries

LS-56500

Terminal Tool

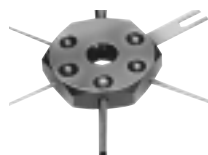
- Designed to remove wires from terminals without damage to either.
- Prongs depress the "barbs" on conventional terminals.
- Fits most sizes of terminal blocks of American makes and some imports.



LS-14900

Terminal Tool for GM C3 Systems

- Designed to remove wires from terminals without damage to either on Pack-Con and Weather-Pack terminals on GM C3 systems.
- Six tools in one - Flat blade to open connectors, Fork blade for ALDL connectors, three different rectangular blades for Pack-Con terminals, and spring-loaded tube for Weather-Pack terminals.
- Can also retrieve trouble codes from engine computer on late model GM vehicles.



JS-06400

TracerEAR™

- Electronic stethoscope with flexible shaft reaches the tightest areas.
- Non-conductive coating protects expensive computer circuitry.
- Ultra sensitive microphone and amplifier give full range of sounds needed.
- No distortion or unwanted sounds bleed in.
- Quickly pinpoints noise and location of bad bearings, bushings, dirty fuel injector, wind and air leaks, noisy valve and lifters.
- Comes with stereo headset in a protective handy kit.



TH-354

Fuel Ignition Troubleshooter

- Pinpoints fuel or ignition as cause of engine misfire, etc.
- Fits on spark plug wire and has 5-foot test lead with neon light and suction cup for attaching to windshield during test drive.
- Flashing light - check fuel system; not flashing - check ignition system.



JS-06600

ChassisEAR™



- Diagnostic system designed to locate problem sounds.
- Listen to 6 under-chassis locations in one road test.
- Hear noises that can not be duplicated on jack stands.
- Super-sensitive microphone in clamps.
- 16 ft. Wire leads (color-coded).
- Uses 9 volt battery (included).
- 6-position control switch identifies 6 channels (color-coded).
- LED light signals when switch is on.
- Adjustable volume control, on/off switch.
- Headphones block outside noise.

LS-52500

Mechanic's Stethoscope



- Unique sound chamber and super thin diaphragm greatly amplify sounds.
- Pinpoints source of noise in engines, transmissions, differentials and bearings.

SF-TA100

Wireless Digital Tachometer/ Secondary Ignition Voltage Tester



- No sighting of rotating parts or hook-up required.
- For 1 to 12 cylinders and 2 or 4 cycle engines.
- Works on DIS, conventional, magneto and most spark ignition systems.
- Measures from 200 to 20000 RPM on a 4-1/2 digits LCD display.
- Advance microcontroller technology yields +/- 0.5% accuracy.
- Digital Secondary Ignition Voltage Tester gives instant digital readings from 0 to 40000 volts.
- Special antenna sensor allows quick hook-up to spark plug and ignition coil wires.
- No ground wire connections required for fast troubleshooting.
- Applications described in comprehensive User's Handbook.
- Power supply: 9V alkaline battery.
- 5-section collapsible antenna with sensor hook.



WARNING!

Wear safety goggles while using electrical equipment.
Read all instructions before using tester and equipment.

OW-C3591

Cornwell Flex-scope



- Flex-scope fluoresces UV dyes. • Can also be used as a traditional bore-scope. • Battery powered. • Quick detection of leak dye in hard to see and reach places. • Ability to inspect inside components. • Confirms leaks where component removal would normally be required. • Storage and operating temperatures: -10°F to +120°F. • Uses include A/C systems, evaporator/condenser, hoses, compressor, EVAP System, engine oil, transmission and power steering fluid, coolant and fuel systems. • **WARNING:** Avoid over-bending the shaft and opening the handle. Do not submerge the handle in any liquid or immerse the shaft in any solvent. Do not use in proximity of live electrical circuits or explosive environments.

CLM-PRO300

PROVISION Fiberoptic Scope



- Ultimate inspection tool for diagnosis/exploration of impossible to reach places using fiberoptic technology. • Flexible omnidirectional cable bends in all directions to allow precise viewing but maintains it's fixed position until readjusted; requires only a 1/2" opening. • Pressure activated light switch is conveniently located but cannot be accidentally left "on". • Integrated focus ring for smooth, continuous focusing. • Ergonomically designed, non-slip handle. • Powerful 2.5V lamp illuminates dark locations for clear viewing. • Cable length: 36", .4" diameter. • Durable heavy-duty plastic carrying/storage case included. • Power source: 2 "AA" batteries (not included).

- CLM-PL1000** Halogen Replacement Bulb
- CLM-PM1** Magnet
- CLM-PVW45** 45° Mirror

KA-3221

Remote Starter Switch



- Heavy duty, push button design allows technicians to start and crank engines from under the hood. • Red ready-light glows when the starter switch is connected to a hot circuit. • Soft rubber grip. • Heavy-duty oil and grease resistant 12 gauge wire. • High current clips open to an extra wide 5/8". • Hot circuit indicator lamp.

CLS-20750

Cornwell Remote Starter Switch



- Tough, smooth-working reliable switch. • Features heavy gauge, rubber-covered copper wire. • Depress button to jog or start the engine.

KA-3220

Remote Starter Switch



- Tool trigger design allows one person to start and crank engine from under the hood. • High-current contacts. • 18 gauge, oil and grease resistant leads. • High impact, pistol-grip housing. • Heavy duty alligator clips with insulated boots.

LS-64650

Ignition Module Wrench for Ford



- Removes 7/32" hex retaining bolts on Ford Ignition Module. • May be used with 1/2" wrench.

RB-5718

Ford Ignition Module Wrench



- 25° offset dual-ended wrench with reversible ratcheting head containing a 7/32" (5.5mm) hex thin-walled deep length socket and T-20 Torx® bit. • Allows for easy removal of Ford ignition module without removal of or tampering with the distributor. • Nickel-chrome plating.

TH-396

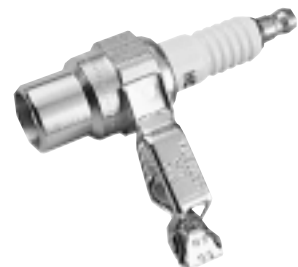
Ford TFI Module Socket



- Works on all Ford/Mercury/Lincoln vehicles with TFI (Thick Film Ignition) modules with 5.5mm hex bolt. • Special depth 1/4" drive, 5.5mm socket loosens and tightens module hold-down screws. • May be used with a 3/8" open end wrench. • Heat treated for durability. • Not for use as an impact socket!

OW-7230

Electronic Ignition Spark Tester



- Check no-start cars for ignition problems. • Unplug the plug wire, connect tester, clamp tester to a good engine ground, crank engine and watch for spark. • Working system will be able to jump a spark across preset .250" gap. • Two testers are recommended for checking spark on DIS or EDIS applications. Also check coil packs with two testers. (May not work on point-type ignitions because they may not generate enough spark to jump wide gap.)

TH-477

"Boot Boss" Spark Plug Boot Puller



- Glass filled nylon construction give the "Boot Boss" strength yet lightweight in design.
- Measuring 5-1/4" in length, this tool will reach and remove recessed spark plug boots.
- Angled lip is designed to reach under the boot to pull off even the most baked on boots without damage to the plug wires.

TH-404

Adjustable Ignition Spark Tester



- For high energy electronic ignition systems to small engines.
- Tests for no start conditions and for spark strength.
- Adjustable gap allows for different spark gap requirements of various ignition systems from 0-40,000 volts.
- Gauge background makes spark easy to see for precise measurement.
- Alligator clip securely fastens to ground.
- Screw assembly adjusts spark gap.
- Includes safety shield.

LS-51250

Spark Plug Wire Puller



- Removes spark plug wire boots from plugs.
- Use in hard-to-reach areas such as recessed and obstructed plugs.
- Square shaft prevents slipping.
- Thick plastic handle prevents electric shock and provides greater pulling power.

TH-458

Coil-On Plug Spark Tester



- Designed for ignition systems with coil-on plugs.
- Test for no-start conditions; measure available coil output.
- Tester plugs into coil boot; 12" ground wire with clip for convenience.
- Adjustable gap allows technician to preset spark tester for the output being tested, from 0 to 40kV.
- Includes safety shield.

LS-51750

Adjustable Spark Plug Tool



- Plier jaws adjust to 5 different positions for easy access to boots.
- Specially shaped, cushioned jaws grip straight on or from the side.
- Plastic handle grips help prevent shock.
- Shipping weight: 11 oz.

KD-135

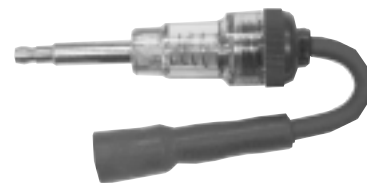
Spark Plug Terminal Pliers



- Safely removes spark plug cables.
- Prevents damage to cables.
- Handles and jaws are coated with heavy duty plastic for sure grip.

TE-23900

In-Line Ignition Spark Checker



- Connects between spark plug and spark plug wire to visually check condition of ignition system at each cylinder.
- Frequency and intensity of flash indicates if ignition or fuel delivery problem is present.
- "Flash" can be seen in bright sunlight.
- Clear plastic body can withstand rough use and resists automotive chemicals.
- Protected by mechanical strain relief.

TE-23904 Repl. Bulb

Spark Plug Sockets, 6 Point



T-2220SPA
T-2226SP



T-2220SPXLA



U-2220LSPA
U-2226LSP



UP-2220LSPRA
UP-2226LSPR

PART NUMBER	DESCRIPTION	NOMINAL	MALE HEX	RUBBER INSERT	LENGTH	OUTSIDE DIAMETER	
						SOCKET END	HANDLE END
T-2220SPA	Standard	5/8"	3/4"	RL-20	2-15/32"	7/8"	7/8"
T-2220SPXLA	Extra Long	5/8"	—	RL-20	6"	7/8"	7/8"
T-2226SP	Standard	13/16"	3/4"	RL-60	2-7/16"	1-1/16"	27/32"
U-2220LSPA	Universal	5/8"	—	RL-20	3-5/16"	7/8"	3/4"
U-2226LSP	Universal	13/16"	—	RL-60	3-5/16"	1-1/16"	3/4"
UP-2220LSPRA	Power Impact Universal	5/8"	—	RL-20	3-5/8"	7/8"	1"
UP-2226LSPR	Power Impact Universal	13/16"	—	RL-60	3-11/16"	1-1/16"	1"

JA-100

Spark Plug Hole Rethreader Tap



- For popular 14MM and 18MM internal threads. • 13/16" hex drive. • Chase out threads when changing spark plugs, necessary when working on aluminum heads and installing plugs with a longer reach.

STC-SPC219

Cornwell Spark Plug Cleaner



- Cleans plugs like new! • Cleans any size plug without changing grommet. • Installs in out of the way places. • Two-way valve action permits use of either abrasive blast or clean air to clean plugs. • One bag of brown aluminum oxide abrasive included.

STC-ABR-1 Bag of Abrasive, 125 grams

RB-4450

Spark Plug Gauge (SAE and Metric)



- Full range coverage for all spark plug gapping requirements from .020 to .080. • Range includes older model vehicles and late model vehicles including those equipped with distributorless ignition systems. • Metric gapping scale shown on reverse side. • Tool includes a recess specifically designed to adjust electrodes. • Features a handy pocket clip.

JS-08310R

12" Plug Starter

- Starts spark plug threads without cross threading. • Reaches those tough to reach plugs. • Bright neon orange color makes it easy to guide the plug accurately to the hole. • Flexible shaft bends and holds any angle. • Cap holds most spark plugs and cannot damage the plug.



RB-FG13

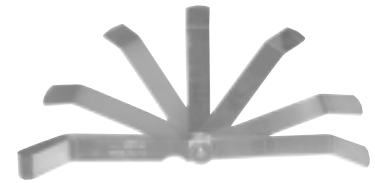
Master GO-NO-GO Gauge

- Twenty-two 3" x 1/2" step-ground blades of the following thicknesses: .004-.006, .005-.007, .006-.008, .007-.009, .008-.010, .009-.011, .010-.012, .011-.013, .012-.014, .013-.015, .014-.016, .015-.017, .016-.018, .017-.019, .018-.020, .019-.021, .020-.022, .021-.023, .022-.024, .023-.025, .024-.026 and .025-.027.



RB-3078

6 Blade Thickness Gauge



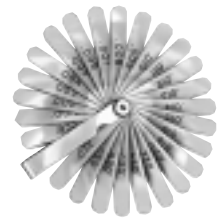
- Contains all the gauges required to set slave piston lash on Detroit Diesel engines. • 4" offset feeler gauges with 0.002" step GO/NO GO. • Feeler gauge blades will be in thickness required by each Jacobs Engine Brake model. • 0.002" step is on the bottom side of the blade so that the GO/NO GO can be felt against the exhaust rocker arm adjusting screw or exhaust valve bridge depending on the model engine. • Blade sizes and usage are as follows:

SIZE	USAGE
0.019"-0.021"	Series 60 Model Year 1999 and before
0.022"-0.024"	Series 60 All Model Years, Series 50
0.025"-0.027"	Series 60 All Model Years, Series 50
0.031"-0.035"	Series 60 Model Year 2000 and higher
0.058"-0.060"	Series 71, Series 92
0.063"-0.065"	Series 71, Series 92

RB-FG35A

"Full-Range" Gauge

- Thirty-five 3" x 1/2" blades of the following thicknesses: .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025, .026, .027, .028, .029, .030, .031, .032, .033, .034 and .035.



RB-FG30MM

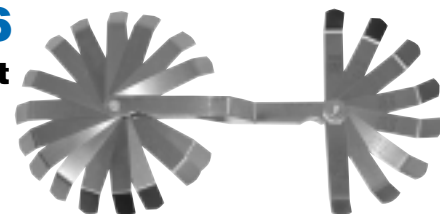
"Full Range" Metric Gauge

- Twenty-five 3" x 1/2" blades of the following thicknesses: 0.04mm, 0.05mm, 0.06mm, 0.07mm, 0.08mm, 0.09mm, 0.10mm, 0.15mm, 0.20mm, 0.25mm, 0.30mm, 0.35mm, 0.40mm, 0.45mm, 0.50mm, 0.55mm, 0.60mm, 0.65mm, 0.70mm, 0.75mm, 0.80mm, 0.85mm, 0.90mm, 0.95mm and 1.00mm.



RB-FG26

Master Offset Gauge



- For overhead valves plus other applications where the 5/8" 45° offset makes job easier. • Twenty-six 3" x 1/2" blades of the following thicknesses: .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025, .026, .027, .028, .029 and .030.

Feeler Gauge Blades



- Available in popular sizes in standard 3" and 12" lengths.



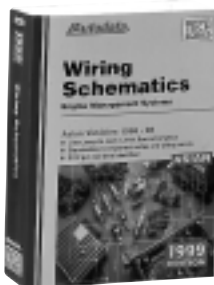
WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

ATD-99550

Wiring Schematics Manual

- For Asian vehicles 1986-98.
- Provides fast access to information for Engine Management Systems.
- Clear, easy-to-read line type diagrams.
- Component codes and wiring colors – standardized for all vehicles.
- ECM pin numbers are identified.
- Based on vehicle makers' information.



ATD-02140

2002 Motorcycle Data Manual

- Over 100 lines of data on over 1200 models!
- Domestic and Imported models 1988 - 2001.
- Now includes ATVs & Dirt Bikes!
- Covering: Aprilia, Arctic Cat, Bombardier, BMW, Buell, Cagiva, CZ, Ducati, Harley Davidson, Honda, Husqvarna, Italjet, Jawa, Kawasaki, KTM, Laverda, Morini, Moto Guzzi, Muz, Piaggio, Polaris, Royal Enfield, Suzuki, Triumph, and Yamaha.
- Includes information researched from factory sources on valve clearances, compression and oil pressures, jet sizes, fuel levels, pilot screw openings, ignition and spark plug data, firing orders and cylinder layouts, essential tightening torques, fork oil capacities and seal sizes, tire sizes and pressures, and lubricants and capacities.
- Size: 7" x 9-1/4", 816 pages.



NE-4000

MITYVAC® SILVERLINE™ Automotive Testing and Brake Bleeder Kit



- One person operation to test vacuum related engine systems and bleed hydraulic lines of most automotive braking systems, including some antilock systems.
- Easy-to-read center facing vacuum gauge in inches and centimeters of mercury (Hg).
- Consists of: precision die cast zinc-alloy metal vacuum/pressure pump - repairable design, reservoir jar & transfer lid, storage lid, two 24" lengths of 1/4" I.D. tubing, Automotive Test Adapter package, Brake Bleeding Adapter package, 1-1/4" rubber cup adapter, user's manual and carrying case with removable lid.

NE-4100 Silverline™ Maintenance Kit

NE-6171 Vacuum Gauge (old style)

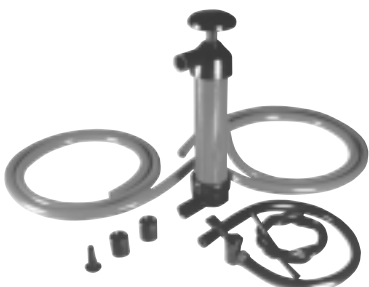
NE-6909 Reservoir Jar and Lid

NE-06172 Vacuum Gauge (new style)

NE-7240

Fluid Transfer Pump

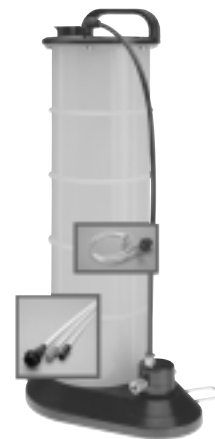
- Made of durable polyethylene - will not rust or corrode!
- Quick and easy method to transfer or siphon all types of fluids (oil, transmission fluid, water, etc.).
- Also great to carry in the car for emergencies such as running out of gas.
- Can also be used to inflate items (inflation needle not included).



NE-7300

PneumatiVac™ Air-Operated Fluid Evacuator

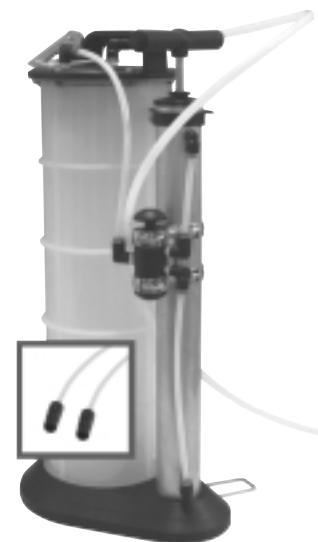
- Will extract most automotive liquids including transmission and brake fluid, coolant, gear and engine oil in just over one minute!
- Unit includes the following: 5 feet of flexible hosing, 2 rigid dipstick tubes for engine oil removal (3 feet in length), hose assembly with in-line shut-off valve and universal brake bleeding adapter for bleeding hydraulic brake systems, automatic flow control valve that prevents overfilling and automatically shuts off at 8 liters, base mounted Venturi which provides stability during use, air shut-off valve which allows the unit to be used away from an air source, an air muffler on the Venturi for quieter operation, and a large 8.8 liter (2.3 gallon) capacity fluid reservoir constructed of durable polyethylene and will not rust or corrode.



NE-7201

Fluid Evacuator Plus

- Creates vacuum and pressure for greater versatility.
- Evacuates and dispenses most automotive liquids and chemicals including transmission fluid, coolant, brake fluid, gear and engine oil.
- Larger capacity 8.8 Liter (2.3 Gallon) fluid reservoir.
- Automatic flow control valve prevents overfilling and automatically shuts off at 8 Liters.
- No electrical or compressed air required.
- Durable polyethylene construction will not rust or corrode.
- Can be used in conjunction with **NE-7205** Fluid Evacuator Brake Bleeding Accessories Kit for evacuating brake fluid.
- Includes the following: External pump equipped with switch valve to change from vacuum to pressure. Pour spout with heavy duty plug, 5 ft. of flexible hosing, and Two 3-ft. rigid dipstick tubes for engine oil removal.



NE-7205

Fluid Evacuator Brake Bleeding Accessories Kit

- Must be used in conjunction with the NE-7201 Fluid Evacuator.
- For one-person vacuum bleeding of hydraulic brake systems.
- Includes a durable brass flow control valve and universal brake bleeding adapters that fit most bleeder screws.



JS-97301

Vacuum and Fuel Pressure Tester Kit

- Large 3-1/2" dial gauge with lens and chrome bezel.
- On-scale diagnostic information included.
- Includes 24" rubber connection hose.
- Dual scale - vacuum and pressure.
- Housed in blow-molded carrying case.



TH-312

PLUG-ALL® Vacuum and Fuel Line Stoppers

- Stepped design plugs fit all 1/8", 3/16", 1/4", 5/16", 3/8" and 1/2" hoses.
- Tapered caps close tubes from 1/8" to 1/2".
- Use during tune-ups, vacuum tests, fuel pump repairs, etc.
- Bead chain prevents loss.



HM-TU1P

Deluxe Vacuum and Fuel Pump Tester

- Comes complete with 2 feet of high quality hose, plus 3 fittings to test all domestic and imported cars and trucks with gasoline engines.
- Large 3-1/2" four color easy to read gauge with hook for versatility.
- Range on dial is 0-28 inches/0-70 cm vacuum and 0-10 PSI/0-.7kg/cm².
- Diagnose: fuel pump pressure and all vacuum operated devices; emission control devices; leaky, burnt or sticky valves; incorrect timing; leaky intake manifold; clogged muffler; locate leaks in gas line; valve timing; worn rings; spark plug miss; heating and air conditioning controls; automatic door locking mechanism; windshield wipers and power brakes; restricted exhaust systems; turbo testing.
- Instructions and specifications included.



HM-TU443

Deluxe Global Fuel Injection Pressure Test Set (For all systems)

- Uniquely designed 3-1/2" (90mm) gauge has a special expanded 1 lb. incremental dual dial for accurate and easy reading, with a 100 PSI/7 bar scale.
- Has a relief valve and 6 ft. of tubing to relieve pressure and the fuel safely.
- Allows for checking for sufficient fuel flow.
- 4 ft. gauge-hose and gauge with a hook can be hung-up for hands-free use.
- The many adapters, hoses, and fittings cover all Fuel Injection Systems of most cars and trucks worldwide.
- Quick coupler connection at the end of the gauge hose makes a speedy and efficient coupling possible with most adapters.
- Comes in a specially designed, compact plastic blow-molded box.



HM-41028 Gasket/HM-71318

HM-41853 Washer/HM-71319

HM-71317 Manifold with quick coupler

HM-71318 Adapter for Standard Schrader Valve

HM-71319 Ford Adapter for Standard Schrader Valve

HM-74437 Repair Kit

HM-74489

Fuel Injection Update Kit



- For use with HM-fuel injection sets (except TU-13, TU-113, TU-457, TU-458 & TU-459).
- Includes right angle adapters for Ford, GM, for those hard to reach places.
- Includes an adapter that enables technician to check Deadhead Pressure on 1/4", 5/16" and 3/8" hose.
- Also Quick Connects for Chrysler, GM and other vehicles with metal and plastic disconnects.
- A must have for late model cars without a Schrader valve.

HM-TU470A

Fuel Injection Canister Cleaner, 2 Gauges

- Cleans fuel injectors restoring the original spray pattern and giving improved performance, fuel economy, and emission tests.
- Cleans carbon from intake valves, fuel passages, and cylinders with a professional carbon cleaning solution.
- Two gauges allow for checking the vehicle fuel pressure with the bottom gauge then setting the cleaning pressure with the top gauge by referring to vehicle fuel pressure on the bottom gauge.
- Uses shop air with any professional canister cleaning solution on the market. Ample capacity: holds 20 oz.
- Use with **HM-TU443** Deluxe Global Fuel Injection Pressure Test Set (For all systems).



HM-TU448PB

Basic Fuel Injection Pressure Tester

- For all systems except Bosch CIS and GM TBI.
- Includes everything in a plastic box required to test the following: American Motors, Bosch AFC, MPC, Digijet/Digifant - Except C.I.S., Chrysler Corporation, Ford Motor Company, General Motors - Except T.B.I., Japanese Fuel Injection Systems, plus others using Bendix-type fuel injection or a Schrader-type valve, including the small Schrader valve found on Ford products.
- Dual scale 2-1/2" (65mm) gauge has a 100 PSI/7 bar dial and hook to hang up for hands-free use.
- Has a multitude of adapters, Banjo Bolts and 16" gauge hose assembly.
- Comes in a specially designed compact plastic blow-molded box.



HM-41028 Gasket/HM-71318

HM-41853 Washer/HM-71319

HM-71318 Adapter for Standard Schrader Valve

HM-71319 Ford Adapter for Standard Schrader Valve

HM-TU1553

American Diesel Compression Test Set

- Includes adapter for all GM, Isuzu, Lincoln Mark VII Continental, Ford/Navistar, Audi, Mercedes, Peugeot, Toyota, VW, and Volvo. Also includes the **HM-TU1517** Diesel Adapter and **HM-TU-1522A** Diesel Adapter for 7.3 Turbo Direct Injection for Navistar/Ford.



HM-TU1517

Diesel Adapter



- For Cummins/Case B Series and Dodge/Cummins (24 x 1.5 thread).

TE-33950

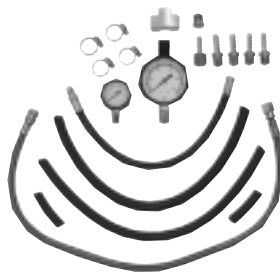
Fuel Injection Pressure Tester

- Test gasoline fuel pump pressure on most domestic and imported fuel injection equipped vehicles.
- Easy to hook up and read.
- Test all GM vehicles with multi-port and some TBI.
- Test all Chrysler cars with multi-port turbos and some TBI.
- Use on Ford TBI systems equipped with or without small Schrader Test valve; test all Ford Vehicles with multi-port fuel injection systems.
- Includes two gauges: Large gauge with hang-up hook for all applications.
- Small gauge for when pressure will not exceed 50 P.S.I. (0-3.5 BAR).
- Full instructions and vinyl pouch.

TE-33907 Large Gauge - calibrated from 0-100 P.S.I. (0-7.0 BAR)

TE-33916 24" Blue Hose

TE-33966 Small Gauge - calibrated from 0-50 P.S.I. (0-3.5 BAR)



TE-33850

Fuel Injection Adapter for Ford Vehicles

- Test fuel injection system pressure on all Ford vehicles equipped with small Schrader-type test valve on TBI and multi-port fuel injection vehicles.
- Use with **TE-33950** Fuel Injection Pressure Tester.



OW-3050C

8 Piece Deluxe Noid Lite Set



- Noid Lites quickly determine if the electrical signal is present at the fuel injector.
- Just plug in and turn over the engine; flashing noid indicates good signal.
- Expanded set of eight Noid Lites cover: GM PFI, Ford TBI, Geo TBI, Bosch PFI, GM TBI, GM SCPI, and now new applications of Bosch 2 and Multec 2.
- Kit comes in molded plastic case and includes a harness extension that allows for convenient remote viewing from the driver's seat.

Set consists of the following in a molded plastic carrying case:

PART NO.	DESCRIPTION	APPLICATION
OW-7187	GM TBI Noid-Lite	GM model 100, 200, 220, 300, 400, 500 series TBI; used on various cars and trucks
OW-7188	Bosch PFI Noid-Lite	GM model 700 series TBI
OW-7601	Ford TBI Noid-Lite	
OW-6023	GM Multec 2 Noid-Lite	Injectors used in '99 and newer 2.4 4 cyl. In Olds Intrigue
OW-7602	GM PFI Noid-Lite	Multec PFI and bottom feed injectors used on 2.2 4 cyl. J & L cars from about '89 to '93
OW-7608	Geo TBI Noid-Lite	Geo '92 and newer
OW-7828	GM SCPI Noid-Lite	Truck engines '96 and newer 4.3 V-6, 5/0 and 5.7 V-8; '99 and newer 4.8, 5.3, 6.0 V-8
OW-6266	Bosch 2 Noid-Lite	Injectors used in 2000 and newer 4.6 V-8 Cadillac, 4.0 V8 Olds
OW-6260	Fiber Optic Noid-Lite Extension	

CWI-FITL

Fuel Injection Test Light Set

- Use for checking the electronic control module signal that sends directions to the idle air-control motor on GM vehicles with throttle body or port fuel injection systems.
- **CWI-IACS** for use on 1987 to current GM No. 700 TBI and PFI Fuel Injection Systems with flat 4-pin connectors.
- **CWI-IAC90** for use on 1982 to current GM TBI and PFI Fuel Injection Systems with square 4-pin connectors.

Set consists of the following in a plastic carrying case:

PART NO.	DESCRIPTION
CWI-FIT1	GM TBI Noid Light
CWI-FIT2	Bosch PFI Noid Light
CWI-FIT3	Ford TBI Noid Light
CWI-FIT4	GM PFI Noid Light
CWI-FIT5	Geo TBI Noid Light
CWI-FIT6	GM SCPI Noid Light
CWI-IACS	Straight IAC Signal Tester
CWI-IAC90	90° IAC Signal Tester



LS-27800

Universal Noid Light

- Adjustable probes fit all Electronic Fuel Injection systems.
- Tests throttle body injectors, ported fuel injectors and sequential central port injectors.
- One person operation.
- Attach tool to the car body or windshield with suction cup; view the noid light from the front seat while cranking the ignition. A flashing light indicates normal pulse; no light or constant light indicates a problem.
- Two probe adapters screw on to form larger diameter probes.

LS-27870 Replacement bulb



OW-7665

GM TBI Pressure Adapter

- Designed to replace the fuel filter on most 1983 and newer GM TBI systems during pressure checks.
- Reduces steps and saves time by making it unnecessary to unhook the fuel line from the throttle before doing system pressure checks.
- Can also be used with injector cleaner to clean the system.



OW-7361

Fuel Line Disconnect Tools

- Ideal for working on quick connect fuel lines.
- Fit 5/16" or 3/8" fuel lines on Chrysler, Ford, and GM vehicles without damaging the connectors.
- Set includes one OW-7370 (gray, 5/16") and one OW-7371 (blue, 3/8") tools.



KD-3526

Ford 7.3L Fuel Cap Tool

- Design allows for easy removal and installation of Ford 7.3L Diesel fuel caps and other Diesel filter systems using the same configuration.
- Works with fuel Caps from 1995 to present.
- Improves ability to remove and install caps where access is a problem.
- Patented.



OW-6285

LeakTamer™ Leak Detection System

- Locate almost any automotive system leak in a matter of minutes, all with the engine off! Features vacuum leak testing, exhaust leaks, crankcase oil, cooling system testing, and wind & water leaks.
- Redesigned smoke chamber generates more smoke, and new solid-state circuitry improves reliability and ensures more consistent smoke output.
- User refillable; More than 1,000 tests per refill.
- Non-toxic, non-corrosive, dense smoke.
- Includes a 3-1/2" diameter exhaust cone (CEA-01), assorted cap plug kit (CEA-02), smoke diffuser adapter (CEA-03), and smoke compound.
- Note: Not recommended for EVAP testing.



SPECIFICATIONS

Dimensions	23"H x 18"W x 9-1/2"D
Weight	17 lbs.
Power Supply	12V DC
Amperage Usage	15 amps
Supply Pressure	1-1/2 PSI
Supply Volume	10 liters per minute
Operating Temperature Range	45°F to 140°F
Vapor (Smoke) Supply	10 feet
Power Supply Leads	10 feet
Remote Starter Cable	10 feet

MV-400-0020

MotorVac® Cleaning Detergent

- Heavy duty gasoline fuel system cleaning solution for use with MotorVac®, CarbonClean® and other professional cleaning systems.
- Safe for use with all gasoline engines.
- Proven to solve driveability problems, reduce harmful emissions, and restore mileage performance.
- Package of 12 - 8 fl. oz. bottles.



MV-MCS245

MotorVac® CarbonClean®

- Works on Port Fuel, TBI, CIS and Carbureted vehicles.
- Large, accurate, easy-to-read pressure and vacuum gauges.
- System runs unattended.
- 10 ft. power cord, 14 gauge heavy duty power leads.
- 0-60 minute adjustable timer.
- 12 volt DC operating range.
- 15 amp circuit breaker.
- 10 ft. output and return hoses of reinforced nylon.
- 10 ft. vacuum hose.
- 5 quart fuel tank.
- 30 gallon per hour pump.



Contact your local Cornwell Dealer for complete details!

LS-22850

Hose Pinchers

- Provides a quick way to pinch off vacuum lines and fuel lines without damage.



OW-7337

Ford Fuel Line Disconnect Tools Set

- Used to easily disconnect the spring lock couplings of fuel lines on Ford's throttle body and port fuel injection systems on most cars and light trucks from 1986-current.

Includes one each of the following:

PART NO.	DESCRIPTION
OW-7335	For 3/8" fuel lines (yellow)
OW-7336	For 1/2" fuel lines (green)

LS-36450

Ford Truck Fuel Line Disconnect Set



- Includes two tools that fit 1992 to present F-Series Ford trucks with 4.9, 5.0, 5.8 and 7.5 liter engines.
- Use the 3/8" tool for the fuel supply line and the 5/16" tool for the return line.
- Both tools are 15" in length.
- Reach and disconnect the fuel lines without lowering the fuel tank.
- Prevents damage to fuel lines if lowering the fuel tank is necessary.

Includes one each of the following:

PART NO.	DESCRIPTION
LS-36460	5/16" Disconnect Tool
LS-37150	3/8" Disconnect Tool

KD-3321

Fuel Line Quick Disconnect



- Releases fuel line locking mechanism on '89 & newer GM, '90 & newer Ford and some newer Mazda vehicles.
- Also fits Chrysler company fuel-injected vehicles (except imports).
- Fits 5/16" and 3/8" fuel lines.

CWI-FTDL4S

4 Piece Large Diameter Disconnect Tool Set



• Set consists of the following in a plastic storage case:

PART NO.	DESCRIPTION
CWI-134	1/2" Fuel Line Disconnect Tool
CWI-135	5/8" Fuel Line Disconnect Tool
CWI-136	3/4" Fuel Line Disconnect Tool
CWI-137	7/8" Fuel Line Disconnect Tool

Diagnostic & Underhood

CWI-FTD7S

7 Piece Fuel and Transmission Line Disconnect Set

- Contains tools to work on a variety of Ford fuel and transmission lines.
- Separate fittings on fuel lines, fuel filters and fuel tank return lines - sizes 1/4", 5/16" and 3/8".
- Separate automatic transmission of cooler lines on Ford Taurus and Escorts with AXOD and ATX transmissions.
- Comes in a plastic storage case.



Set consists of the following:

PART NUMBER	DESCRIPTION
CWI-102	Ford Fuel Line Disconnect Tool
CWI-111	Ford Transmission Disconnect Tool
CWI-130	5/16" Fuel Line Disconnect Tool
CWI-131	3/8" Fuel Line Disconnect Tool
CWI-132	1/4" Fuel Line Disconnect Tool
CWI-133	Ford Transmission Disconnect Tool
CWI-542	Ford Fuel Line Disconnect Tool

CWI-FTDRB 6 pc. Rubber Band Kit

Pro Style Fuel Line Disconnect Tools



- Separate fittings on fuel lines, fuel filters and fuel tank return lines.

PART NO.	SIZE	PART NO.	SIZE	PART NO.	SIZE
CWI-130	5/16"	CWI-131	3/8"	CWI-132	1/4"

CWI-542

Ford Fuel Line Coupling Tool

- For use on 1990 and newer Ford Rangers and Explorers with 4.0 liter 6 cylinder engines.



AR-8012

5/16" Fuel Line Remover

- Remove fuel filter and 5/16" return line from fuel pump sending unit.
- Made of red-anodized aluminum.
- Applicable to 1990 and newer Ford Aerostar, Explorer, and Bronco; 1991 and newer E & F Series; 1992 and newer Ranger.
- Removes fuel lines from the fuel rail on 1992 and newer GM vehicles with 5/16" quick-disconnect fuel lines, and 1994 & newer Saab 900 sedan (new body style).



AR-8013

3/8" Fuel Line Remover

- Remove 3/8" fuel lines and feed line from fuel pump sending unit.
- Made of gold-anodized aluminum.
- Applicable to 1990 and newer Ford Aerostar, Explorer, and Bronco; 1991 and newer E & F Series; 1992 and newer Ranger.
- Also removes fuel lines from the fuel rail on 1992 and newer GM vehicles with 3/8" quick-disconnect fuel lines, and 1994 & newer Saab 900 sedan (new body style).



TH-361

GM Fuel Inlet Nut Wrench

- Fits all 1" GM fuel inlet nuts.
- Angled to allow use of two wrenches side by side.
- Twelve point open jaw slips over fuel line up to 3/8".
- Hardened steel with vinyl grip.



SL-89800

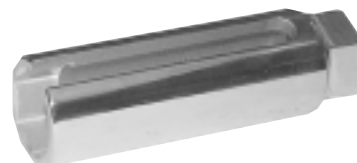
Honda/Acura Fuel Filter Banjo Bolt Socket



- For most 1986 and later fuel injected Honda and Acura automobiles.
- Remove/install the banjo bolt used to attach the fuel line to the fuel filter.
- Fits over the head of the banjo bolt for total contact; eliminates stripping the minimal flats on O.E. fitting when using a 17mm open end wrench.
- SP High Tech black finish.

T-32280S

Oxygen Sensor Socket



- Remove and install oxygen sensors on computerized engine controlled vehicles in hard-to-reach places.
- 15/16" hex assist on the drive end allows turning by wrench.
- 1/2" Drive x 7/8", 6 Point.
- Chrome plated, heat treated, heavy-walled socket.
- Outside diameter: 1-1/4".
- Overall length: 3-7/8".

SL-93750

Offset Oxygen Sensor Wrench



- Special GM 2-1/8" offset wrench developed to access oxygen sensors on the LTI GenII 5.7L HO MPFI V-8 found in the 1992 and later Chevrolet Corvette, 1993 and later Camaro, and 1993 and later Pontiac Firebird/Trans Am.
- Additional applications include the 1989 and later Chevrolet Corvette ZRI with the LT5 5.7L DOHC SFI V-8 as well as other vehicles.
- Made from quality alloy steel with a SP High Tech black finish and a 3/8" square drive.

SL-88750

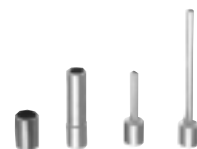
Compact Oxygen Sensor Wrench



- Fits into area above the catalytic converter on 16-valve GTI VWs.
- Use with most oxygen sensors on both foreign and domestic cars.
- Compact design; 3/8" square drive.
- Access the oxygen sensor in confined area on all VW 4 CYL 1996 and later.
- Made from quality heat-treated steel.

TH-380

GM Computer Controlled Carburetor Sockets



- Sockets fit Varajet, Durajet and Quadrajat Computer Controlled Carburetors.
- Use with 1/4" drives.
- Adjusts or removes Throttle Position Sensor (TPS), Idle Air Bleed, Mixture Control Solenoid and Main Metering Jets.
- Sockets include: 2MM "Double D", 2.5MM Hex, 7MM "Double D", and 10MM "Double D".

TH-362

GM Computer Controlled Carburetor Tools



- For 2MM, 7MM, 10MM "Double D" and 2.5MM hex fittings.
- Fit Varajet, Dualjet and Quadrajat carburetors.
- Adjusts or removes Throttle Position Sensor (TPS), Idle Air Bleed, Mixture Control Solenoid and Main Metering Jets.
- Use with 7/16" and 1/2" deepwell sockets.

LS-46500

Carburetor Pin Tool



- For removal and installation of carburetor linkage pins. • Also for "E" clips and small parts.

DD-CCS

CARBCLIK™ Carburetor Tool Set



- Designed with the fuel system specialist in mind. • Unique "CLIK" feature insures safe, easy and accurate fuel system adjustment. • Sockets are designed to turn loose carburetor adjusting screws only and are not designed for impact use.

Includes one each of the following:

PART NO.	DESC./APPLICATION
DD-CC0	Double D on Cable Socket - flexible shaft for turning hard to reach screws that are hidden by temperature switches
DD-CC1	Small Blade Socket w/sleeve - Fits most early type carburetor systems
DD-CC2	Large Blade Socket w/sleeve - Fits most early type carburetor systems
DD-CC3	Standard Blade Socket - Fits most early type carburetor systems
DD-CC4	Double D Socket - GM-type carburetor
DD-CC5	3/32 Hex Bit - Ford-type carburetor
DD-CC6	3MM Hex Bit - Extra length bit for most CIS type fuel systems, also fits GM ignition points
DD-CC7	4.5MM Hex Socket - GM-type carburetor
DD-CC8	Carbclik™ Tool
DD-CC9	Miniature Blade Socket - For adjusting potentiometers on side of air flow sensor plate, CISE and CISE MOTRONIC.

DD-CC90

CARBCLIK 90°™



- 18" long tool with 90° end for adjustment of fuel system in hard-to-get-to situations, using the CARBCLIK™ sockets, on aircraft, foreign autos, motor bikes, etc. • Designed for loose screw applications only.

DD-90GK Gear Kit - includes 4 "C" clips and 2 gears

TH-350

Carburetor Adjusting Tool



- For all 1979 and up GM carburetors. • Flexible shaft tool easily reaches and adjusts idle mixture screws. • One end fits "Double D" screws and other end fits 4.5MM hex heads. • Sliding handle fits securely in either end of tool.



WARNING!

Use only in well ventilated areas.
Flammable liquid and fumes can ignite.
Read all instructions before using equipment.

AC-40SK

Flexible Driver Kit



- Ideal for late model GM distributor point adjustments, carburetor adjustments, starting and removing screws, retrieving lost parts. • 21" long with 3-1/2" flexible section. • 1/4" drive.

Kit contains one each of the following:

PART NO.	DESCRIPTION
AC-40S-1	1/8" Hex adaptor
AC-40S-2	Screw Driver adaptor
AC-40S-3	Screw Starter adaptor
AC-40S-4	Magnet adaptor
AC-40S	1/4" Flexible Driver only

VM-V392

Carburetor Base Wrench



- Designed for removing the carburetor base from all Datsun, Toyota, Mercedes Benz, and others. • Dual wrench has 10MM 12 pt. box opening on one end and 12MM 12 pt. box opening on other end to fit hexagon nuts. • Length: 8-1/4" with a 2" offset. • Made from alloy steel, heat treated with a chrome finish.

VM-VBE4

E4 Torx® Deep Recess Tool



- Designed for removing GM "LT1" distributors. • Inverted 1/4" Hex x E4 Torx Bit. • Overall Length: 4".

VM-VB572XL

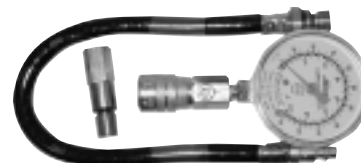
Ford Truck TORX® Bit



- Designed for use on Ford truck intake manifolds. • 5/16" Hex x T40 Torx® Bit. • Overall Length: 8"

MT-S1251

Deluxe Compression Tester



- Long reach 14MM adapter for late model Fords and others. • Spare valve core. • Large 2-1/2" dial with composite metric scale - reads both PSI and all metric ranges. • Double fiber braided neoprene hydraulic hose. • Readings: 0-300 PSI, 0-2100 kPa, 0-21 kg/cm², 0-21 Bars. • Do not use standard tire valve core.

KA-2505

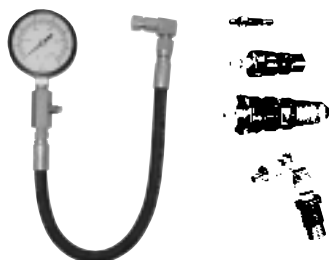
Heavy Duty Compression Test Kit



- Tests for cylinder compression, worn piston rings, blown head gaskets. • Accurate bronze phosphorus bourdon tube gauge, screw-on impact-resistant lens. • Quick disconnect and pressure release valve for quick re-checks. • High impact carrying case. • All chrome adapters (10mm, 12mm, 14mm, 14mm long reach, 18mm, 18mm long reach). • Compression: 0-300 psi; 0-21 Kg/cm².

TE-34700

Diesel Compression Tester



- Measures cylinder pressure on diesel equipped cars and light trucks.
- Records maximum pressure reached during engine test.
- Release valve allows for venting and resets gage for repeat tests.
- High pressure hose: 16-1/2" long.
- Gage Scale: 0-1000 PSI; 0-70 bars.
- Swivel end quick coupler is connected to any of the adapters listed below. (Adapters are not included — order separately.)

PART NO.	DESCRIPTION/APPLICATION
TE-34730	Diesel Tester Adapter For 4.3 & 5.7 liter GM cars and 6.9 & 7.3 liter Ford/Navistar. Use through glow plug port. 10mm-1.00 thread.
TE-34740	Diesel Tester Adapter For Audi, Cummins 6 BT 4.02" bore 5.9 liter, Mercedes Benz, Volkswagen and Volvo vehicles. Fits into the fuel injector port with 24mm-2.00 threads.
TE-34760	Diesel Tester Adapter For use on V-185, V-210, V-225, V-555, VT-255 & VT-555 Cummins engines. Fits into fuel injector port.
TE-34780	Diesel Tester Adapter For Mercedes Benz Cars. Tests through the glow plug port. Two adapters in one piggy-back style for 12mm-1.25 and 18mm-1.50 threads. 18mm style - for regular Mercedes Benz engines and Model 300 prior to 1978. 12mm style - for new Model 300 and Model 300 Turbo Diesel from 1978; and 250 and 350 Turbo models.

JS-97311

Compression Test Kit



- Large 2-1/2" dial gauge with lens and chrome bezel.
- Convenient side release valve allows retest without removing adapter.
- Includes Air Hold Valve.
- Dual color-coded scale - PSI and Metric.
- All adapters constructed of nickel-plated brass.
- Housed in blow-molded carrying case.

HM-TU12P

Engine Oil Pressure Tester



- Tests all domestic and most imported cars and light trucks with gasoline engines.
- More accurate than dashboard oil pressure gauges.
- 2-1/2" gauge with hook has a 0-100 PSI/7 bar dial.
- Includes 24" nitrile (oil-proof) hose with fittings.

TE-34550

Automatic Transmission and Engine Oil Pressure Tester



- Check oil pressure in automatic transmissions and engines.
- Adapters provide coverage of most domestic and imported cars and light trucks including late models.
- Includes six feet of oil proof hose and ten assorted fittings.
- Supplied in durable vinyl pouch.
- Includes two gauges for more accurate testing: Large gauge with hang up hook calibrated from 0-600 P.S.I. (0-4000 kPa, 0-40.0 bar), can be used for all applications. Small gauge provides more detail when pressure will not exceed 50 P.S.I. (0-3.5 bar).
- Full instructions provided.

NOTE: Do not use small gauge to test automatic transmission pressure.

TE-33966 Small Gauge

TE-34501 Large Gauge

TE-34502 Replacement Hose

HM-TU30

Super Compression Tester



- Tests compression on all domestic and imported cars and light trucks with gasoline engines, including mini engines.
- 2-1/2" gauge (300 PSI and 0-21 bar) comes with a protective boot.
- Has a separate, very handy small engine tester with heavy duty hose.
- Includes: M14 separate flex hose adapter with short thread, M14 separate flex hose adapter with long thread, M18 separate flex hose adapter with short thread, M18 solid long reach adapter, M10 and M12 solid adapters, complete quick coupler for valve repairs, Repair Parts kit in a plastic box with compartments for all parts.

HM-70328 13MM Long Hose Assembly

HM-TU15-51

Automotive Diesel Compression Test Set



- A basic set for Diesel work in the American market.
- Tester has a handy deflator for releasing air & retesting.
- A 16-1/2" wire reinforced hydraulic hose has a quick coupler on a swivel for ease of connection.
- A 2-1/2" gauge with easy to read red and black dial & snap-in lens. Records pressures from 0-1000 PSI and 0-70 bar.
- Adapters for All GM, Isuzu, Lincoln Mark VII and Continental, Ford/Navistar, Audi, Mercedes, Peugeot, Toyota, VW, Volvo - Bacharach conversion adapter also included.
- Comes in a red plastic blow molded case; instructions and specifications included.

HM-TU-1522A Diesel Adapter - Ford/Navistar 7.3L

HM-TU16PB

Transmission/ Engine Oil Tester



- Checks oil pressure in automatic transmission and gasoline engines.
- Quick coupler connections make for easy and fast change of gauges.
- Large gauge: 3-1/2"; 0-400 PSI/0-28 kg/cm² dial; For all applications.
- Small gauge: 2-1/2"; 0-100 PSI/0-7 bar dial; For more accurate reading of lower engine oil pressures.

HM-CLT-2PB

Dual Gauge Cylinder Leakage Tester



- Measures the ability of an engine cylinder to hold compressed air using shop air pressure and supplements compression tester.
- Zeros in on the exact problem if there is poor engine performance.
- Pinpoints bad valves, worn rings, cracked cylinder walls, and blown head gaskets.
- Has a precision regulator with a combination M14 and M18 adapter on a 26" hose assembly.
- Dual easy-to-read gauges allows the mechanic to monitor input airline pressure.
- Comes in a plastic case.

HM-TU18P

TDC Whistle with Hose and Adaptor



- Used to locate approximately TDC in cylinder leak testing.
- Can also be used to remount distributor correctly; Will also show if timing belt or chain has slipped.
- Whistles on the compression stroke and stops whistling at approximately TDC.
- Quick coupler connects directly to the cylinder hose.
- For use with **HM-CLT-2PB**.



WARNING!

Wear safety goggles. Use in well ventilated areas. Do not expose gasoline, solvents, etc. to flames, sparks or other sources of ignition. Read all instructions before using tester and equipment.

12 Point Distributor Wrenches

- Designed to reach the hard-to-get-at distributor hold-down bolts in various automobile engines.
- Useful for other applications such as carburetor, air conditioning mountings and hex fasteners.
- Made of alloy steel, heat treated with black oxide finish.

VM-V108

1/2" Opening



APPLICATIONS			
CARMAKE	ENGINE TYPE	CARMAKE	ENGINE TYPE
American Motors	258CID "6"	International	"4"
Chrysler Products	318 thru 440CID V8	International	258CID "6"
Ford Products	289 thru 429CID V8		

VM-V106

1/2" Opening



APPLICATIONS			
CARMAKE	ENGINE TYPE	CARMAKE	ENGINE TYPE
Ford Products	'56-65 V8	Ford Products	289 thru 429CID V8

VM-V107

9/16" Opening



APPLICATIONS			
CARMAKE	ENGINE TYPE	CARMAKE	ENGINE TYPE
General Motors	143CID "4"	General Motors	250CID "6"
General Motors	230CID "6"	General Motors	260 thru 455CID V8

VM-V101

9/16" Distributor Wrench

- For GM High Energy Ignition distributors.



VM-V105

9/16" Opening



APPLICATIONS			
CARMAKE	ENGINE TYPE	CARMAKE	ENGINE TYPE
American Motors	348CID V8	General Motors	230CID "6"
American Motors	360CID V8	General Motors	260 thru 455CID V8
General Motors	190CID "6"		

VM-V201

15MM Opening

- For Cadillacs up to 1986, General Motors 4.1L V8 Engines.



12 Point Distributor Wrenches

- Designed to reach the hard-to-get-at distributor hold-down bolts in various automobile engines.
- Useful for other applications such as carburetor, air conditioning mountings and hex fasteners.
- Made of alloy steel, heat treated with black oxide finish.

VM-V109

13MM Opening



APPLICATIONS			
CARMAKE	ENGINE TYPE	CARMAKE	ENGINE TYPE
Chrysler Products	"K" Car 2.2L "4"	Ford Products	3.3L "6"
Chrysler Products	105CID "4"	Ford Products	2000 CC "4"
Ford Products	5.0LV8	Ford Products	2800 CC V6

VM-V117

13MM Opening



APPLICATIONS			
CARMAKE	ENGINE TYPE	CARMAKE	ENGINE TYPE
Chrysler Products	"K" Car 2.2L "4"	General Motors	"J" Car 1.8L "4"
Chrysler Products	105CID "4"	General Motors	A.I.R. Control Valve

VM-V118

15Mm Opening



- For General Motors S10 2.8L V6 Engines.

KD-104

Distributor Clamp Wrench



- Reach around obstructions to turn distributor lock nut with this double-ended wrench.
- Fits 1/2" and 9/16" lock nuts.
- Use adapter to join wrenches together or attach to 3/8" ratchet or extension.

CTH-TC-S4

Dead Blow Piston Hammer



- Enables hammer face to be self-healing and dent resistant.
- High quality custom formulated hot cast polyurethane for long life and elasticity.
- Impervious to oil and most chemicals.
- Slimline heads with unique profile for all types of assembly and repair operations.
- Molded in Trucothane™ with shot filled dead blow heads.
- Exclusive textured, non-slip, comfort contoured handle.
- Weight: 32 oz.
- Face diameter: 1-3/4".
- Head Length: 8-1/2".
- Overall Length: 12-3/4".

KD-850

Piston Ring Compressor Set



- Can be used either parallel or perpendicular to the cylinder block.
- Fine tooth ratcheting lock permits bands to be compressed in small increments.
- Set includes **KD-1114** pliers and six bands ranging from 2-7/8" to 4-3/8" (73mm to 111mm).

LS-21700

Wrinkle Band Ring Compressor

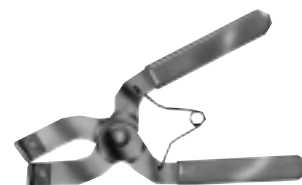


- Low friction - rings slide in easily.
- Wrinkle band prevents slippage into cylinder.
- Cam Operated - set adjustment screw once for entire set of pistons.
- Range: 3" to 5" (76.2 - 127mm).

LS-33500

Piston Ring Installer

- Tapered jaws to remove and install most passenger car and light truck rings from 3/64" to 1/4" (1.2 - 6.3mm).
- Reduces ring breakage.



Piston Ring Compressors

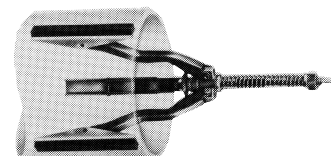


- Tempered blue spring steel.
- 2-band ratchet type.

PART NO.	DESCRIPTION
UL-RC-1	2-1/8" to 5" capacity - fits passenger cars.
UL-RC-2	3-1/2" to 7" capacity - fits light trucks

CF-61CS

Adjustable Deglazing Hone

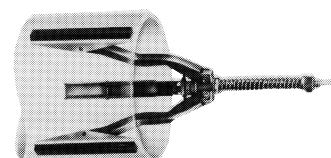


- Works on 2" - 7" diameter cylinders.
- Spring tension adjusting nut for adjustable cutting action.
- Provides fast accurate honing of cylinders.

REPLACEMENT STONES			
PART NO.	GRIT	STONE LENGTH	QTY./BOX
CF-61-12S	Medium	3"	3
CF-61-14S	Fine	3"	3
CF-61-100	Coarse	3"	3

CF-62CS

Adjustable Deglazing Hone

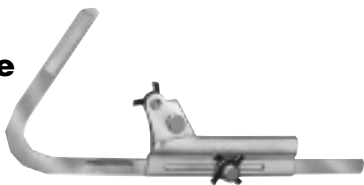


- Same as **CF-61CS** but equipped with 4" long stones.

REPLACEMENT STONES			
PART NO.	GRIT	STONE LENGTH	QTY./BOX
CF-62-12S	Medium	4"	3
CF-62-14S	Fine	4"	3

AC-571

Piston Ring Groove Cleaner



- Removes carbon from ring grooves on 2" to 5" pistons in cars/light trucks.
- Compensating spring controls pressure on cutter.
- Rigid frame prevents side play of cutter.
- Does not chatter, gouge, catch in oil holes or jump out of grooves.
- Two 6-sided blade cutters (inch and metric) rotate to any selected dimension without loosening hold down nut.

AC-571AK Repl. Cutter Kit

Crankshaft Turning Sockets

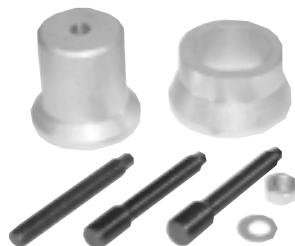
- Designed to easily rotate the crankshaft during engine assembly.
- Manufactured from heat treated alloy steel.
- Gold iridite plated for maximum corrosion resistance.
- 1/2" square drive.



PART NO.	APPLICATIONS
TV-08600	Small Block Chevy V8, 90° V6
TV-08605	Big Block Chevy V8

SL-62300

Toyota/Lexus Cam & Crank Seal Installation Set



- Quickly and easily install the crankshaft seal which is in a confined area on most Toyota and Lexus 4 cylinder, 6 cylinder, V-6 and V-8 engines.
- Also installs the camshaft seal on most 6 cylinder, V-6 and V-8 engines.

Camshaft Seals:	Crankshaft Seals:
6-cyl: 2.8L & 3.0L	4-cyl: 1.5L, 1.6L, 1.8L, 2.0L, 2.2L, 2.4L & 2.7L
V-6: 2.5L, 3.0L & 3.4L	6-cyl: 2.8L & 3.0L
V-8: 4.0L & 4.3L	V-6: 2.5L, 3.0L & 3.4L
	V-8: 4.0L, 4.3L & 4.7L

KD-912

Valve Spring Compressor



- Removes and replaces weak or broken valve springs in GM 8-cylinder engines.
- Used with heads on.
- Heavy duty construction.
- 12-1/2" long.

CAUTION: Wear safety goggles. Keep hands clear of fan, belts & pulleys since slight crankshaft rotation will occur.

OW-7928

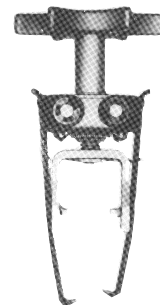
Ford Valve Spring Tool

- Compresses valve springs for easier camshaft, valve seal, valve spring, or retainer service; no need to remove the head from the engine first.
- Similar to Ford Number 303-567.
- Use with 3/8" ratchet or breaker bar.
- OEM approved.
- Works on: '91 and newer Ford 4.6L, two-valve, V-8 engines; 4.6 4V, 5.4 V-8 and 6.8 V-10.



KD-2078

Universal Overhead Valve Spring Compressor



- Removes valve springs on most cars with overhead valves without removing cylinder head.
- Offset jaws grip valve spring in parallel compression.
- Maintains constant length as spring is compressed.

KD-3271

Deluxe Universal Valve Spring Compressor



- Removes valve springs on most cars and light trucks.
- Use with the cylinder head on or off of the engine.
- Features a removable handle allowing use with a 5/8" socket or wrench in confined areas and an extra long leg for more applications.
- For best results, use with Air Hold Fittings to pressurize the cylinder and keep the valves in place during removal of the spring and keepers.
- CAUTION:** Wear eye protection. Vehicle must be placed in park/neutral before applying air pressure, otherwise vehicle may move. Keep hands clear of fan, belts and pulleys, since slight crankshaft rotation will occur.

KD-3087

Valve Spring Compressor



- Compresses valve springs on most overhead valve engines, including GM, Ford, Chrysler, Nissan and Toyota.
- Can be used with cylinder head on or off the engine.
- Jaws adjust to fit over spring retaining washer and an adjustable handle allows for easy clearance in tight areas.
- GM adapter is included.
- Use a fulcrum rail if overhead cam is not available.
- Use air hold fittings to keep valve in place.
- CAUTION:** Wear eye protection. Vehicle must be placed in park/neutral before applying air pressure, otherwise vehicle may move. Keep hands clear of fan, belts and pulleys, since slight crankshaft rotation will occur.

SL-91400

Universal Valve Spring Compressor



- Remove/install valve spring with the cylinder head on the engine in the car, or with cylinder head removed.
- Multi-point adjustable base bolts securely to the head while adjustable lever mechanism pivots from the bar compressing the spring.
- Removal/installation of spring retaining keepers is easily accomplished through large openings on both sides of the compression tube.
- "Easy grip" handle and storage tray.

Valve Lappers

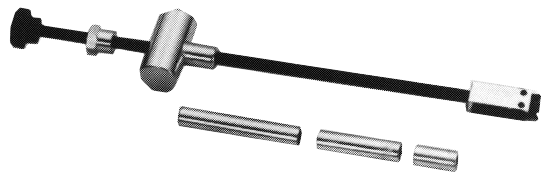
- Used for hand lapping valves.
- Unique locking tabs positively secure cups to hardwood handles.
- Eliminates slippage.



PART NO.	DESCRIPTION
LS-21100	1-1/8" x 1-3/8" dia. cups
LS-21200	5/8" x 13/16" dia. cups

KD-2079

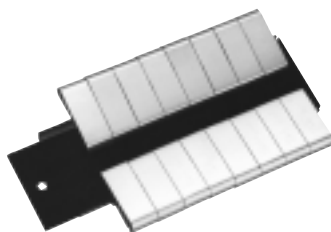
Hydraulic Valve Tappet Remover



- Removes stuck hydraulic valve tappets with heavy duty slide hammer type tool.
- Jaws spread to clamp recessed area of tappet, use slide hammer to remove.
- Adapters convert tool to a puller for baked-in tappets.
- Turn adjusting nut with 5/8" wrench.

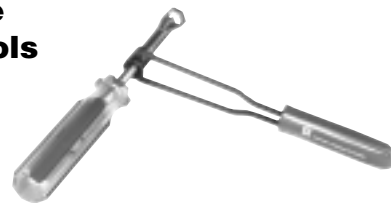
VM-V16

Rocker Arm Oil Deflector Set



- For engines with pressure lubricated push rods.
- Deflects oil from rocker arm to valve chamber, returning oil to engine.
- Sixteen individual deflectors in set permit both banks of valves to be adjusted simultaneously.
- Attaches easily to rocker arm.
- Metal storage panel included.

Universal Valve Adjustment Tools



- Two in one tool features a window in its socket to see position of screwdriver blade holding the adjustment screw as the jam nut is tightened.
- Visual contact allows for quicker valve adjustment times as the technician can hold the adjustment screw exactly where he wants it.
- Window is always visible because handle pivots from one side to the other.
- Heat treated chrome vanadium steel with a soft grip handle.

PART NO. DESCRIPTION

- | | |
|-----------------|---|
| SL-88800 | For Honda, Toyota, Nissan and cars with 12mm jam nut valve adjustment screws. |
| SL-88950 | For Hondas and cars with 10mm jam nut valve adjustment screws. |



WARNING!

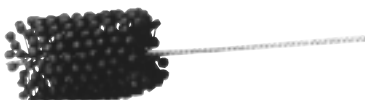
Use approved eye protection when using tools. Read operating instruction thoroughly on tools before use. Flex-Hones® shall be securely held in a collet, chuck or similar holding device. Secure unit being honed and position all guards before starting tool. Tool length should be no longer than necessary to perform work.

THE FLEX-HONE® TOOLS

The FLEX-HONE® Tool is a resilient, flexible hone tool with a soft cutting action. The tool is made from 95% pure raw grain abrasive laminated onto flexible nylon filaments. Each tool is self-centering, self-aligning to the bore and self-compensating for wear. It removes peaks from the surface as well as cut, torn, and folded metal left by previous machining operations. The FLEX-HONE® can develop a plateau of over 60 percent while producing an oil holding cross hatch pattern with the required AA. The FLEX-HONE® Tool is available in a wide variety of abrasive types, grit sizes, bore diameters and can be customized to meet a particular requirement.

(NOTE: Not available for export.)

Heavy Duty Double Spiral FLEX-HONE®



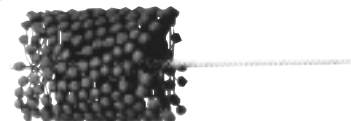
- Block cylinders or Liners.
- Silicon Carbide abrasive, 120 grit.
- Less flexible than standard duty, best for following boring bar or for out-of-chassis engines.
- 13-1/2" O.A. length.

PART NO. DESCRIPTION

- | | |
|--------------------|--|
| BR-GBD3-1/2 | 3-1/2" (89MM) For bore sizes 3-1/2" to 3" |
| BR-GBD4 | 4" (101MM) For bore sizes 4" to 3-1/2" |
| BR-GBD4-1/2 | 4-1/2" (114MM) For bore sizes 4-1/2" to 4" |

BR-GB4-1/8

Standard Duty Spiral FLEX-HONE®



- Block cylinders.
- Silicon Carbide abrasive, 120 grit.
- 13-1/2" O.A. length.
- 4-1/8" (105mm).

Injector Brushes



- Stainless Steel wire with handle.
- Use when changing injector while in truck.

PART NO. DESCRIPTION

- | | |
|---------------|-------------------------|
| BR-DD1 | Detroit Diesel 53/71/92 |
| BR-NH1 | Cummins Diesel |

For our complete line of Safety Equipment, refer to Index



LS-49500

Chrysler Harmonic Balancer Puller



- Three jaw puller removes harmonic damper pulleys found on Chrysler and some Saturn engines.
- Magnet clips allow tool to fit Dodge trucks and Durango with 5.9 liter engines.

KD-2897

Pulley Puller/ Installer Set



- Remove pressed-on alternator and power steering pulleys on late-model GM, Ford and Chrysler engines. • Threaded end installs late-model GM alternator and power steering pulleys, including Quad 4. • Reverse the jaws to pull the alternator internal bearing. • Fits some AMC vehicles.

Includes the following:

PART NO.	DESCRIPTION
KD-2897-80	Puller Body
KD-2897-81	Jaw & Sleeve Assembly
KD-2897-82	Jack Screw
KD-2897-83	Button
KD-2897-84	Bearing and Washer
KD-2897-85	Puller Pin for Quad 4
KD-2897-86	Screw Installer/Quad 4
KD-2897-87	Puller Pin/GM 3.1
KD-2897-88	Screw Installer/GM 3.1
KD-2897-89	Screw Installer/Ford 4.6
KD-2897-90	Screw Installer/General Duty

SL-97400B

Chrysler & GM Harmonic Damper Pulley Puller



- Remove the harmonic damper pulleys on many Chrysler and GM engines.
- Eliminates removing the radiator before being able to remove the pulley.
- Includes long and short push rods. • Designed for use on the following engines: Chrysler 1990 & later vans with 3.3L V-6; Chrysler 1993-1997 automobiles with 3.3L & 3.5L V-6; Chrysler 1994 & later vans with 3.8L V-6; Chrysler 1994 & later pickups with 8.0L V-10; Chrysler 1995 & later automobiles with 2.0L 4 Cyl., 2.4L 4 Cyl. & 2.5L V-6; Chrysler 1998 & later automobiles with 2.7L DOHC V-6, 3.2L SOHC V-6 & 3.5L SOHC V-6; Chrysler 1998 and later 4.7L V-8; Mitsubishi Eclipse 1995-1999 2.0L DOHC non-turbo; GM 1997 and later Gen III 5.7L V-8, which includes Camaro, Corvette, Firebird and Trans-Am; GM 2000 and Gen III trucks & SUV's with 4.8L V-8, 5.3L V-8, 6.0L V-8 and 8.1L V-8; Cadillac 1988-1992 4.5L V-8, 1991-1995 4.9L V-8, 1993 & later 4.6L V-8, Escalade with the 6.0L V-8; Oldsmobile 1995 and later 4.0L V-8.

- SL-97400-4** Long Push Rod
SL-97400-6 Short Push Rod
SL-97400-7 Extra Long Push Rod

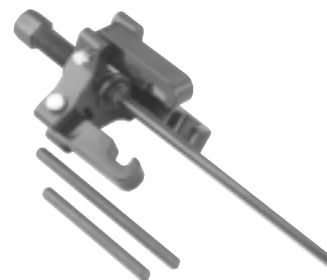


WARNING!

Wear safety protective eyewear.
Read operating instructions thoroughly.

OW-6267

GM/Chrysler Harmonic Balancer Puller



- Special 3-jaw puller design allows the removing of Chrysler and GM damper pulleys in tight engine compartments and without removing the radiator. • Applies to GM 2000 Generation III 4.8L, 5.3L, 5.7L, 6.0L, and 8.1L V-8s. Also works on Cadillac 4.5, 4.6, and 4.9L V-8s beginning in 1988. • Chrysler engines beginning in 1990 thru 2002 can be serviced, including 2.0, 2.4 L-4s plus 2.5L, 2.7L, 3.3L, 3.5L, and 3.8L V-6s. • Kit contains the 3-jaw puller, three lengths of forcing rods, and a forcing screw with a 3/8" square drive for ratchet use, and 3/4" hex for wrench or socket use. • Weight: 2 lbs., 11 oz.

OW-6495

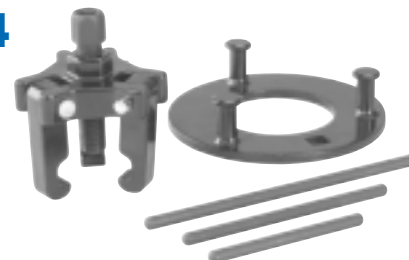
Chrysler Harmonic Balancer Holding Tool



- Designed as a holding ring with three pins to fit into the openings on a harmonic balancer. • Use with a 1/2" ratchet or breaker bar to hold the harmonic balancer in place when turning the bolt that holds the balancer to the crankshaft. Also use to hold the balancer when removing it from the engine. • Works on 1990-newer 3.3L V-6 vans; 1994-newer 3.8L V-6; 1993-1997 3.3L and 3.5L V-6 cars; 1998-newer 2.7L, 3.2L, and 3.5L V-6 cars. • Weight: 1 lb., 10 oz.

OW-C6284

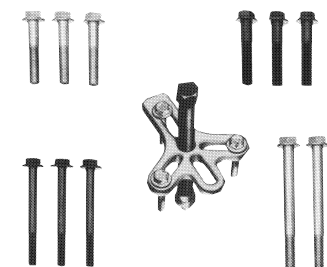
Chrysler Harmonic Balancer Puller and Holder Set



- Allows the technician to remove and install the harmonic balancer on the most popular Chrysler engines. • Includes the following in a molded carrying case: **OW-6267** GM/Chrysler Harmonic Balancer Puller and **OW-6495** Chrysler Harmonic Balancer Holding Tool. • Weight: 3 lbs., 7 oz.

PU-190

Harmonic Balancer Puller



- Designed to pull balancers, vibration dampers, pulleys, or any tool with tapped holes. • Four slots in yoke for two or three hole applications. • Range: 1-3/8" to 3-9/16". • Includes five sets of screws.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
PU-190-1	Yoke Only	PU-190-5 (3)	3/8"-24 x 2"
PU-190-2	Center Screw Only	PU-187-6 (2)	3/8"-16 x 4"
PU-190-3	Swivel and "O" Ring	PU-187-7 (3)	M8 x 1.25 x 80mm
PU-190-4 (3)	5/16"-18 x 2"	PU-189-8 (3)	M10 x 1.50 x 50mm

SL-60100

Honda/Acura Harmonic Pulley Holder

- Aids in the removal/installation of the crank bolt on most Honda and Acura engines.
- Use 1/2" breaker bar or ratchet to keep harmonic damper pulley from rotating when removing pulley bolts.
- Hole in center of tool allows use of a socket and extension to break loose or tighten pulley bolts.

Works with the following engines:

HONDA	
Accord	2.2L 4 cylinder 90-97; 2.7L 6 cylinder 96-97; 2.3L 4 cylinder 98 & later; 3.0L V-6 98 & later
Civic	1.6L 4 cylinder 92 & later
CRV	2.0L 4 cylinder 97 & later
Del Sol	1.6L 4 cylinder 93-97
Insight	1.0L 3 cylinder 2000 & later
Odyssey	2.2L 4 cylinder 95-97; 2.3L 4 cylinder 98; 3.5L V-6 99 & later
Prelude	2.2L 4 cylinder 92 & later; 2.3L 4 cylinder 92-96
S2000	2.0L 4 cylinder 2000 & later
ACURA	
CL	2.2L 4 cylinder 97; 3.0L V-6 97-99; 2.3L 4 cylinder 98-99; 3.2L V-6 2000 & later
Integra	1.6L 4 cylinder 90-92; 1.7L 4 cylinder 92-93; 1.8L 4 cylinder 93 & later
Legend	3.2 L V-6 91-95
RL	3.5L V-6 96 & later
TL	3.2L V-6 95 & later



OW-C6503

Master Steering Wheel Puller Set

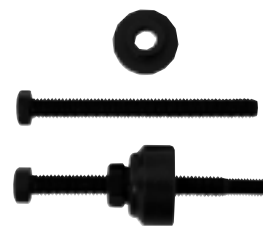
- Removes steering wheels on most domestic or imported vehicles, with or without telescoping steering columns.
- Includes four pairs of cap screws to fit a variety of requirements, puller legs to remove steering wheels without tapped holes, and 4-way flange and three each of 5 sizes of hardened hex head flange bolts for two or three way pulls.
- Covers all lock plates with or without air bags as well as all steering columns, including tilt and telescoping.
- Storage case and detailed application chart included.



OW-C6507

Power Steering Pump Pulley Installer

- 3/8-16 forcing screw installs power steering pulleys on most Ford, Chrysler, VW, and GM vehicles with a Saginaw, Thompson, or Ford C2 power steering pump.
- M8 x 1.25 forcing screw installs power steering pulleys on the Ford C111 power steering pump.
- Also installs press-fit pulleys on a 4-cylinder and V-6 GM as well as GM vacuum pump pulleys.
- Includes special spacer to install pulley to correct depth on 1996 - newer Chrysler Cirrus, Dodge Stratus, and Plymouth Breeze.
- Works on older Chrysler alternator pulleys.
- Includes 3/8" adapter to replace pulley on GM and Ford power steering pumps.
- Roller bearing and tool shape prevent damage to pump and internal parts.



OW-C6505

Master Harmonic Balancer Installer Set

- Covers almost every car and light truck application, old or new.
- Installs drive pulleys or harmonic balancers that are press-fit onto the crankshaft.
- Heavy-duty 7/8" diameter forcing screw has internal threads to fit the threaded adapters.
- 13 adapters, in the right reach length to fit most threaded crankshafts
- Storage case and detailed application chart included.



PU-188A

Harmonic Balancer Installer with Thrust-Bearing

- Easily installs harmonic balancers and drive pulleys that are pressed on the crankshaft.
- Thrust-bearing which allows for smoother use and application.
- Bright luster plate and black oxide finish.
- Comes in a blow molded plastic case.

Includes the following components and eight adapters:

PART NO.	SIZE	PART NO.	SIZE
PU-188-1	Center Screw	PU-188-8	5/8"-18
PU-188-2	Forcing Nut	PU-188-9	M12 x 1.5
PU-188-3A	Thrust Bearing	PU-188-10	M14 x 1.5
PU-188-5B	7/16"-20	PU-188-11	3/4"-16
PU-188-6B	1/2"-20	PU-188-12	M16 x 2.0
PU-188-7	9/16"-18		



OW-C6508

Power Steering Pump Remover/Install Kit

- Power Steering Pump Pulley Puller removes power steering pulleys on most Ford, Chrysler, VW and GM vehicles with Saginaw, Thompson, and Ford C2 and C111 power steering.
- Fits 1-1/8", 1-1/4", 1-5/16", and 1-3/8" pulley hub diameters including 1988-1989 GM Quad 4, 1991-1994 GM 3.1 V-6, 1995-newer 3100 and 3400 V-6, 1991-newer Ford 4.6 and 5.4 V-8 engines with metric pump shafts.
- Power Steering Pump Pulley Replacer installs press-fit pulleys on 4 cylinder and V-6 GM as well as GM vacuum pump pulleys.
- 3/8-16 forcing screw installs power steering pulleys on most Ford, Chrysler, VW and GM vehicles with Saginaw, Thompson, and Ford C2 power steering pumps.
- The M8 x 1.25 forcing screw is used to install power steering pulleys on Ford C111 power steering pumps.
- Includes special spacer to install pulley to correct depth on 1996-newer Chrysler Cirrus, Dodge Stratus, and Plymouth Breeze.
- Includes 3/8" adapter to replace pulley on GM and Ford power steering pumps.
- Roller bearing and tool shape prevent damage to pump and internal parts.



OW-C6506

Power Steering Pump Pulley Puller

- Removes power steering pulleys on most Ford, Chrysler, VW, and GM vehicles with a Saginaw, Thompson, or Ford C2 and C111 power steering.
- Fits 1-1/8", 1-1/4", 1-5/16", and 1-3/8" pulley hub diameters, including 1988-1989 GM Quad 4, 1991-1994 GM 3.1 V-6, 1995-newer 3100 and 3400 V-6, 1991-newer Ford 4.6 and 5.4 V-8 engines with metric pump shafts.



PU-187

Steering Wheel Puller

- Sturdy cross arm is slotted for maximum adjustment. • Center screw is 5/8"-18 and 4" O.A. • Includes five sets of screws.



PART NO.	DESCRIPTION
PU-187-1	Cross Arm Only
PU-187-2	Center Screw - Short
PU-187-3	Swivel & O-Ring - Flat
PU-187-4 (2)	5/16"-18 x 4-1/2"
PU-187-5 (2)	5/16"-24 x 3-1/2"
PU-187-6 (2)	3/8"-16 x 4"
PU-187-7 (2)	M8 x 1.25 x 80mm
PU-187-8 (2)	1/4"-28 x 3"

KD-3511

Steering Wheel Puller Kit

- Kit includes 2291 Steering Wheel Puller, 3509 Steering Wheel Lock Plate Tool, and **KD-3510** Steering Wheel Puller Legs. • 2291 Steering Wheel Puller pulls steering wheels on most US and imported cars. Includes special (5/16"-UNC) bolts for use on GM vehicles with S.I.R. units to avoid damaging electrical components. Floating swivel on center screw prevents damage to steering column. • Five sets of side bolts included: 3/8-16" UNC, 5/16-18" UNC, 5/16-24" UNF, 1/4-28" UNF, and 8mm. • Can also be used to remove Crankshaft Pulleys on Chrysler 2.2 and 2.5L engines.



KD-3510

Steering Wheel Puller Legs

- Use in conjunction with the 2291 Steering Wheel Puller to remove steering wheels on late model GM vehicles that are not pre-drilled to receive standard bolts. • Applications include: Cadillac 1997 and new Catera; Chevrolet/GMC 1997 and newer Malibu, Corvette 1998 and newer C- and K- series trucks, full-sized vans, Astro/Safari vans; Buick 1997 and newer Park Avenue and Regal Oldsmobile; Oldsmobile 1997 and newer Cutlass; Pontiac 1988-1993 LeMans 1997 and newer Grand Prix and Trans Sport Van. • Includes bushing to cover the following applications: Ford 1997-Current Explorer, Ranger, Pickups; Chrysler 1999 Jeep Grand Cherokee.



PU-59

Steering Wheel Lock Plate Remover

- Turn knob to put screw on steering column, turn large wing nut, and retaining spring is ready for release to remove the lock plate. • Reverse to install. • Works on AMC, GM, and Chrysler cars with both conventional and tilt steering wheels and air bags. • Adaptor allows use on both 9/16-18 and 14mm threads. • Bright lustre plate, black oxide finish.

PU-59-9 Lock Pin Assembly



CLS-57340

Cornwell Steering Wheel Lock Plate Tool

- Fits most domestic lock plates, including tilt and telescoping columns and vehicles with airbags. • Includes a small handle which works on late model General Motors vehicles with the gear shift on the floor. • Tool consists of a bolt, large handle, metric adapter, standard adapter, small handle and a nut.



RB-5235

Power Steering Pulley Kit

- Remove/install press-on type belt drive accessory pulleys. • Features interchangeable components to work on GM Quad 4, GM 3.1L, and Ford 4.6L engines. • Features a special holding bar to stop housing from spinning during use with an impact gun. • Includes the following components necessary to remove/install pulleys on pumps with the common 3/8"-16 threaded shaft:



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
RB-5206	Installer Nut	RB-5216	Housing Holder Bar
RB-5208	Removal Pin Quad 4	RB-5219	Thread Shaft
RB-5209	Installer Quad 4	RB-5240	Thrust Bearing
RB-5210	Installer GM 3.1L	RB-5246	Installer Nut Quad 4
RB-5211	Installer 3/8-16	RB-5248-0002	Housing
RB-5212	Installer Ford 4.6L	RB-13-624-006	Washer
RB-5214	Universal Removal Pin		

RB-1214PT

Steering Column Pivot Pin Remover

- Remove pivot pins from all Chrysler, Ford, and GM steering columns. • Fits all tilt and telescopic steering columns, 1969 to current. • Thread the bolt into the pivot pin, turn the nut and pressed pivot pin will pull out. • Two piece design allows for ease of use without the chance of losing or dropping loose tool components. • No assembly/disassembly required.



LS-19940

Steering Wheel Pivot Pin Remover

- Removes the pivot pin on GM, Ford, and Chrysler tilt and telescoping Saginaw steering columns. • Includes extra screw.

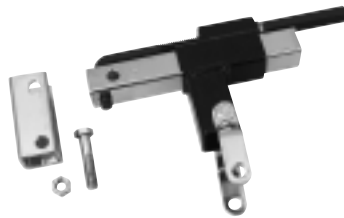
LS-19970 Replacement Cap Screw



LS-48260

Engine Tilter

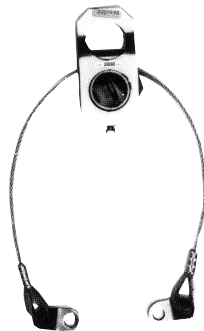
- Tilts and holds GM FWD Transverse Mounted Engines safely in place during service.
- Attaches to the engine and engine mount to pull the engine forward.
- Makes servicing spark plugs, hoses, oxygen sensor, and ignition components much easier.
- Shipping weight: 2 lbs., 7 oz.
- Patent pending.



SS-2000

Engine Tiltlift Sling

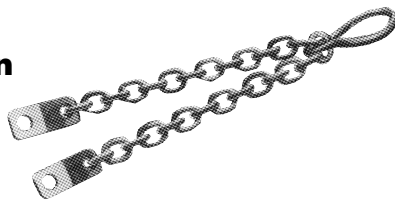
- Capable of tilting load 45° in either direction, while suspended when removing or installing engines, transmissions, etc.
- Features positive lock at any angle.
- Eliminates endless repositioning of chains.
- Includes mounting cleats for fastening.
- Weight: 4 lbs.
- Rated at 2000 lbs. tensile strength, can support up to 10,000 lbs. with it's 1/4" aircraft cable, all steel construction.
- Use in conjunction with our **SR-50** or **SR-70** 1/2" dr. ratchets.



VM-V95

Engine Lift Chain with Loop

- For easy lifting or removal of automobile engines, transmissions, or other heavy units.
- Easily adjusts for proper balance.
- Half-ton load tested 28" chain and lugs are heat-treated alloy steel, zinc plated.



CWI-ELP

Engine Lift Plate

- For use with most two and four barrel intake manifolds.
- Lifts engine via intake manifold.
- 1000 pound maximum load.



CSE-1250

1,250 Pound Capacity Engine Stand

- Sturdy U-shaped design.
- Adjustable locking mechanism allows 360° rotation of engine.
- Storage area for convenience.
- Shipped in two (2) UPS shippable boxes.



SPECIFICATIONS

Capacity	1,250 lbs.
Dimensions	33-1/4"L x 33-1/2" W x 33-1/2"H
Shipping Weight	88 lbs.



WARNING!

Wear safety goggles. Use extreme caution when using engine stands/lifting equipment to prevent tipping. Comply with warning labels for safe and proper use. Read operating instruction thoroughly on tools before use.

TH-419X

GM Engine Moving Tool

- Allows access to transverse mounted engines.
- Fits GM front wheel drive vehicles with engine torque struts used on most transverse mounted engines.
- Replaces existing torque strut (dogbone) and allows engine to be tilted forward to access spark plugs, distributor, ignition coils, steering gear, etc.
- Easy to install.
- Includes TH-419A adapter for 1996 and up GM front wheel drive vehicles.



KD-3680

GearWrench™ Serpentine Belt Tool Set

- Combines the patented innovation of GearWrench™ with the requirements of the Serpentine Belt removal tool to provide the user with the best possible combination.
- Provides coverage for all major vehicles with serpentine belt configuration.
- The versatility and strength of the GearWrench™ allows for unlimited access to serpentine pulley tension arms with added attachments for unlimited coverage.
- Works on domestic and import cars, including Volvo 3/4" square drive requirements.
- Kit comes in a blow molded case for easy storage.



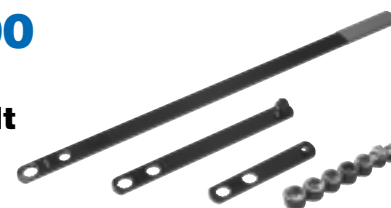
CLS-57900

Cornwell Serpentine Belt Tool

- Used to remove and install belts on serpentine belt systems using the spring loaded idler pulley.
- Reaches where conventional ratchets or breaker bars won't.
- Fits pulleys requiring 13mm, 14mm, 15mm, 16mm, 18mm hex and 3/8" and 1/2" square drive sizes.

Includes the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
LS-57390	14MM Socket	LS-57530	3/8" Sq. Dr. Socket
LS-57400	Handle	LS-57560	1/2" Sq. Dr. Socket
LS-57440	15MM Socket	LS-57580	16MM Socket
LS-57450	18MM Socket	LS-57700	Long Extension
LS-57500	13MM Socket	LS-57910	Short Extension



LS-57600

Serpentine Belt Tool

- Used to remove and install belts on serpentine belt systems using spring loaded idler pulley.
- Fits pulleys requiring 13mm, 15mm, 16mm, 18mm sizes or 3/8" square drive socket sizes, which are on most all domestic applications.
- Select proper socket size and position tool on idler arm (handle only is used for 16mm applications).
- Push or pull to relieve tension.

- LS-57440** 15MM Socket
- LS-57450** 18MM Socket
- LS-57500** 13MM Socket
- LS-57530** 3/8" Square Drive
- LS-57560** 1/2" Sq. Dr. Socket



ZZ-RB858

Serpentine Belt Wrench Set



- Use when servicing serpentine drive belt or any belt-driven accessories.
- Wrenches are designed to release spring-loaded serpentine belt tensioners; fit into tight areas.
- Ratcheting wheels allow quick and easy positioning of wrench driving ends for tensioner access from any angle.
- Heat-treated and nickel chrome plated for strength, durability and appearance.
- Made in the U.S.A.

Set includes the following in a molded tool box:

PART NO.	DESCRIPTION
RB-8585	13MM or 1/2" Hex, 14MM Hex, 18MM Hex, 1/2" Square
RB-8586	15MM Hex, 16MM or 5/8" Hex, 3/8" Square, 1/2" Square

RB-1816 Box/ZZ-RB858 & ZZ-RB859

ZZ-RB859

Import Serpentine Belt Wrench Set



- Designed to release the tension on spring-loaded idler pulleys.
- Allows direct access to the tensioner without having to remove engine accessories or frame components.
- Ratcheting wheels allow easy positioning of the wrench to allow access to the tensioner from any angle.
- Rotate drive end to match the position of serpentine belt tensioner.
- Heat treated and nickel chrome plated for durability, appearance and long tool life.

13MM or 1/2"	Hex	Volkswagen 2.0 liter
14MM	Hex	Isuzu 3.1 liter; Lexus 2.5, 3.0, 4.0 liter; Mazda 2.3, 3.0, 4.0 liter; Toyota 3.0 liter
15MM	Hex	Isuzu 2.8 liter
17MM	Hex	Audi 2.2, 2.8 liter; Mercedes
19MM or 3/4"	Hex	Mercedes
3/8"	Square	Isuzu 2.8, 3.1 liter
1/2"	Square	Volvo 2.3, 2.4, 2.8, 2.9 liter

Set includes the following in a molded tool box:

PART NO.	DESCRIPTION
RB-8591	19MM & 3/4" Square x 14MM & 17MM
RB-8592	15MM & 3/8" Square x 13MM & 14MM

RB-1816 Box/ZZ-RB858 & ZZ-RB859

RB-8593

Heavy Duty Truck Serpentine Belt Wrench



- Used to release any serpentine belt tensioner with a 1/2" square drive opening.
- 13" long, chrome plated, single end, reversible ratcheting wrench.
- Wrench has a 1/2" square drive and vinyl grip for comfort.
- Ratcheting action allows for better positioning of the tool, which gives more swing angle than a solid type serpentine belt wrench.
- The reversible ratchet head is only 1" thick so it will fit between the tensioner face and the fan blades on a Series 60 Detroit Diesel and some caterpillar engines.
- Also great for working on buses and delivery vans where the doghouse or engine shrouding can get in the way and make the work area very tight.
- Compact overall length keeps handle from coming in contact with radiator hoses, charged air cooler pipes, hydraulic lines, and frame rails.

SL-94170

Serpentine Belt Install Tool



- Gives control and reach when installing serpentine belts in all applications.
- Designed to help install V-belts and timing belts that tend to be placed in difficult to reach areas.
- Two pin design gives immediate push/pull capability and handle gives the twisting control.

SL-62400

VW & Audi Tension Pulley Spanner Wrench



- For 1998 and later VW's and Audi's which require spanner wrench adjustments to the timing belt.
- Allows for easy adjustment of the camshaft timing belts that have idler pulleys with pin holes.
- One-piece fully machined block with tips.
- Correct handle angles for maximum clearance.
- Custom spanner wrench grips center of the idler pulley and rotates it around its off-center retaining bolt; then camshaft timing belt tension can be adjusted.
- Made of heat-treated steel with black finish and soft grip handle.

TH-383

Power Steering Belt Tightener



- Heat treated steel tool tightens belt on GM-type Saginaw pumps.
- Slips over bracket to eliminate damage to pump housing.
- Eight-pointed star for use with 1/2" drive ratchet or breaker bar.

SL-97300

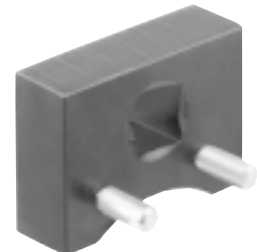
Toyota/Lexus Timing Belt Tensioner Tool



- For replacing timing belt on 5VZ-FE, 3.4L V-6 and 4.0L, 4.3L, 4.7L V-8 engines.
- Compresses hydraulically activated belt tensioner without removing engine components.
- Place tool between belt tensioner and water pump pulleys; turn the inner nut which applies pressure to the hydraulic tensioner, pushing it into a position for the locking pin to be put into hydraulic piston push rod. Once locking pin is in place, remove the tensioner compressor and place the timing belt on all appropriate pulleys.

OW-7997

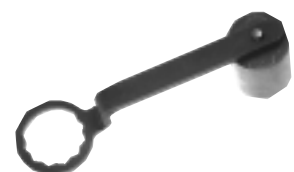
Timing Belt Wrench



- Correctly adjusts the timing belt tension on the following: 1991-1994 3.0L DOHC Dodge Stealth, 1992-1994 Eagle Summit, 1992-1994 Dodge Colt, and 1984-1991 2.0L Dodge Colt.
- For use with a 1/4" drive ratchet.
- Weight: 3 oz.

KD-3282

Chrysler Timing Belt Tension Tool



- Use to adjust timing belt tension to manufacturer's specifications on Chrysler 2.2L and 2.5L engines.
- Weight can be reversed to either side allowing use in confined areas.

CAUTION: Wear eye protection. Do not use with engine running.

Diagnostic & Underhood

KD-3471

Universal Pulley Holder



- Trap and hold bolt-on pulleys by the mounting bolts on most applications.
- Use in conjunction with fan clutch wrenches to remove and replace thermostatic fan assemblies which eliminates need for various sized holding wrenches.
- Applications: Ford trucks with 2.8L, 2.9L, 3.0L, 4.0L, 4.9L, and 5.0L engines; Dodge trucks with 3.9L, 5.2L, 5.9L, 8.0L, and V10 engines; GM trucks with 4.3L, 5.0L, and 5.7L engines; and Jeeps with 5.2L engines.

SL-61100

GM Water Pump Remove/Replace Tool



- Used to remove and install the water pump impeller on Cadillac Northstar 4.6 liter V-8 engines 1993 and later as well as Oldsmobile Aurora 4.0 liter V-8 engines 1997 and later.
- Enhanced with durable contoured fingers to give the most strength and control in removing and replacing the water pump impeller.
- Turning the pump impeller clockwise 23 degrees releases the cam locking system. Installation of the water pump impeller is performed in the opposite manner.
- Made with quality, heat-treated steel and with a black finish.

LS-14440

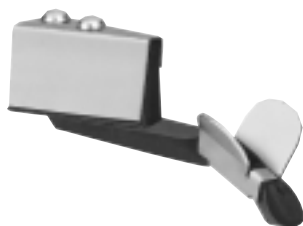
Northstar Water Pump Wrench



- Removes and installs the water pump assembly on GM Northstar 4.0L and 4.6L engines.
- To use, insert the tool over the water pump blades and engage the teeth into the locking tangs. Turn the tool with a 1/2" drive ratchet or breaker bar.
- Angled teeth prevent the tool from slipping.
- Shipping weight: 15 oz.

TH-332

V-Belt Installer and Remover



- Steel and neoprene tool details and installs V-belts quickly.
- Eliminates loosening bolts or stretching belts.
- Use with remote starter switch for maximum safety.

KD-3259

Vacuum Switch Socket/Oxygen Sensor Switch Socket



- Has a 1/2" square drive and a 7/8" external hex.
- Can be turned with either a ratchet or 7/8" wrench.

LS-25500

Flexplate Wrench



- Works where access is limited.
- Works on GM transverse mounted engines where spanner type tools won't fit.
- Adjustable grippers fit both wide and narrow rims.
- Works on all flexplates.

OW-6486

Ford Contour/Mystique Cam Tool Kit



- For 2.0L Zetec engines in Contour/Mystique.
- Includes one of each of the following:

PART NO.	DESCRIPTION
OW-6474	Cam Alignment Tool
OW-6475	Crankshaft TDC Timing Pin.

OW-6487

Ford Cam Tool Kit



- For 1992 through current 4.6L, 5.4L, and 6.8L modular V-8 engines.

- Includes one of each of the following in a molded storage case:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
OW-6476	Cam Positioning Tool Set	OW-6009	Cam Positioning Tool
OW-6477	Cam Holding Tool	OW-6020	Cam Positioning Tool

OW-6488

Explorer & Mountaineer Cam Tool Kit



- For 1997 through 2002 4.0L Explorer/Mountaineer SOHC V-6 engines.

- Includes one of each of the following in a molded storage case:

PART NO.	DESCRIPTION
OW-6478	Cam Gear Holding Tool
OW-6479	Crankshaft Holding Tool
OW-6480	Cam Holding Tool Adapter
OW-6481	Cam Holding Tool
OW-6482	Cam Gear Holding Tool Adapter
OW-6484	Timing Chain Tensioner Tool
OW-6485	Cam Gear Bolt Socket & Ext.

OW-6489

Ford Master Cam Tool Set



- Set includes 22 cam tools covering over 50 Ford applications from 1992 through 2002.
- Set includes all tools from the **OW-6486**, **OW-6487**, and **OW-6488** all in one set.
- Molded storage case included.

Note: Cam tools ensure proper cam timing when servicing timing belts, chains, head gaskets, or other valve train repairs.

BTU-AST4500B

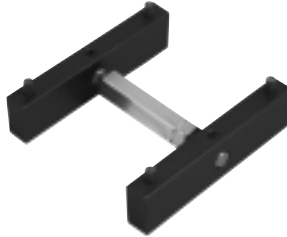
Universal Cam Lock



- Designed for use on twin and quad cam gas and diesel engines.
- Easily locks onto sprockets to ensure positive retention of engine timing position.
- Holds camshafts in position during timing belt replacement.
- Great for retaining timing when changing belts or adjusting belt tension.
- Eliminates expensive "One Model" timing brackets.
- Incorporates "Pitch Adjustment" feature to easily handle varying sprocket diameter and tooth pitch.
- Ratchet lock handles for strong lever action within limited space.
- Unique design provides maximum horizontal and lateral/offset adjustment.

LS-36880

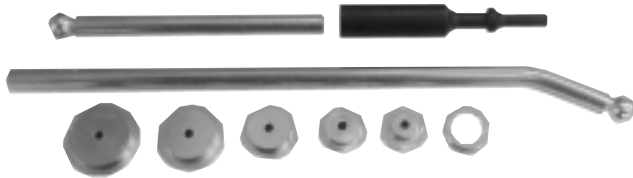
Dual Overhead Cam (DOHC) Lock Tool



- Locks camshaft sprockets in place during belt/chain replacement.
- Unique design uses knurled pins to hold against the inside of the cam sprockets.
- Two parallel bars "float," allowing the knurled pins to align with the sprockets.
- Preserves the engine timing during belt or chain replacement.
- Shipping weight: 10 oz.
- Patent pending.

SH-77475

Master Freeze Plug Installation Tool Kit



- Complete kit including straight and formed driver, all adapters and coupling nut, plus exclusive pneumatic adapter.
- All parts quality machined and plated.
- Made in U.S.A.

Kit consists of the following:

PART NO.	DESCRIPTION
SH-77031	18" Bent Shaft Freeze Plug Driver
SH-77032	Coupling Nut
SH-77033	1-3/4" Adapter
SH-77034	1-1/2" Adapter
SH-77035	1-1/4" Adapter
SH-77036	1" Adapter
SH-77037	3/4" Adapter
SH-77473	8" Straight Freeze Plug Driver
SH-77474	Pneumatic Adapter

SH-77473

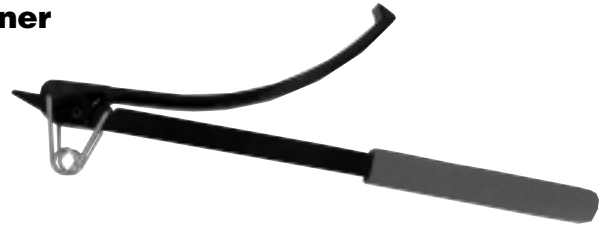
Straight Freeze Plug Driver



- Designed as an alternative to the **SH-77031** Bent Shaft Freeze Plug Driver.
- Used for easy to reach freeze plugs and bench work when the engine is pulled and easy to rebuild.
- Length: 8".

LS-23800

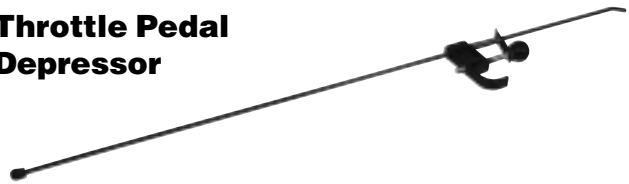
Flywheel Turner



- Used to hold the flywheel or flexplate when torquing the flywheel or harmonic balancer bolts on most vehicles.
- Also used to turn the flywheel to rotate the motor.
- Folds for easy storage.
- Shipping weight: 1 lb., 4 oz.

LS-48700

Throttle Pedal Depressor



- Holds throttle at a constant RPM.
- To use, engage the nylon hook under the steering wheel. Then extend the depressor rod to the accelerator pedal. Use the adjustment screw to fine-tune the RPM level.
- Overall length: 40".
- Shipping weight: 1 lb., 7 oz.
- Patent pending.

SH-77030

Freeze Plug Installation Tools



- Inexpensive hand tool to reach those stubborn freeze plugs.
- No need to remove head or manifold.
- Five special machined head adapters fit most freeze plugs.
- Durable high carbon steel, fully plated.
- Formed shaft is 18" long with knurled ring nut.
- Made in U.S.A.

Contains the following:

PART NO.	DESCRIPTION
SH-77031	18" Bent Shaft Freeze Plug Driver
SH-77032	Coupling Nut
SH-77033	1-3/4" Adapter
SH-77034	1-1/2" Adapter
SH-77035	1-1/4" Adapter
SH-77036	1" Adapter
SH-77037	3/4" Adapter

SH-77474

Pneumatic Adapter



- Designed for use with an air hammer for installing freeze plugs.
- Machined from one piece of tool steel and heat treated.

RB-9793

Harley Davidson Sportster Spline Wrench



- For rotation of the crankshaft on all Harley Davidson Evolution Sportster motors.
- Checks engine timing and parts clearance.
- Chrome plated E-Z Grip single end offset ratcheting box wrench which contains a 1" diameter wheel to service 6 spline on Sportster cycles.
- Comfortable screwdriver-style handle.

RB-9794

Harley Davidson 1340cc Spline Wrench



- For rotation of the crankshaft on all Harley Davidson Evolution 1340cc motors.
- Check engine timing and parts clearance.
- Chrome plated E-Z grip single end offset ratcheting box wrench which contains a 1-1/8" diameter wheel to service 10 spline on Sportster cycles.
- Comfortable screwdriver-style handle.

Diagnostic & Underhood

RB-6529

Harley Davidson Rocker Box Cover Wrench



- For installation and removal of all Harley Davidson Evolution motor rocker box covers.
- 9-3/4" long, chrome plated single end reversible ratcheting wrench which contains 1/4" drive with 3/16" replaceable Allen bit and vinyl grip.
- Low profile to allow for clearance between the frame and engine.

ATD-01170

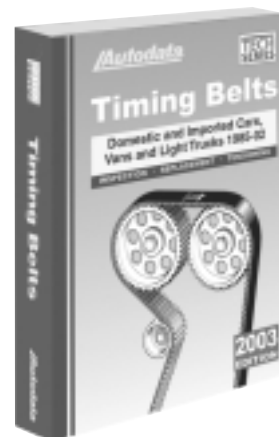
2001 Timing Chain and Gears Manual



- Provides valve timing procedures for domestic and imported vehicles 1988-2000.
- Includes chain & gear replacement, general removal & installation instructions, and safety precautions.
- Special tools identified where required.
- Also features information on tensioner adjustments, tightening torques, timing marks, valve timing, tensioner release & reset methods, and chain routing & sprocket/gear valve timing marks.
- Contains 230 separate model related sections, 480 pages total.
- Size: 7"W x 9-1/4"H.

ATD-03180

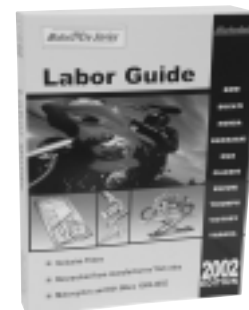
2003 Timing Belt Manual



- 2003 Edition provides all the information required for the inspection, replacement and tensioning of timing belts on domestic and imported cars, vans and light trucks from 1985 to 2002.
- Clear, concise "removal and installation instructions".
- Engines are identified as "interference" or "freewheeling".
- Clear line drawings provide excellent visual presentation.
- OEM recommended belt replacement intervals.
- Special tools are identified where required for the replacement.
- Labor times are given for removal and installations.
- All information is researched from factory manuals.

ATD-02-840

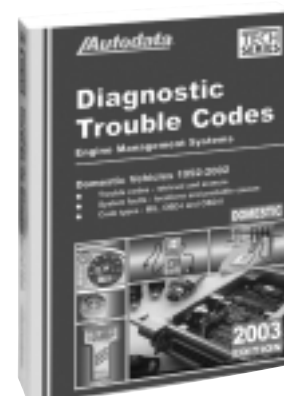
Motorcycle Labor Guide



- 2002 Edition.
- Inclusive times.
- Researched from manufacturers' flat rates.
- Motorcycles and dirt bikes from 1989-2002.
- Includes coverage of BMW, Ducati, Honda, Kawasaki, Muz, Piaggio, Suzuki, Triumph, Victory, and Yamaha.
- 576 pages; Size: 7" x 9-1/4".

ATD-03340

2003 Domestic Diagnostic Trouble Code Manual



- For domestic vehicles 1992 - 2002.
- Covers trouble codes (accessing and erasing), system faults (locations and probable causes) and code types (MIL, OBD-I, OBD-II).
- Based on vehicle makers' information.
- Data link connector locations.
- Code retrieval techniques are described using concise text and clear illustrations in separate sections for each model.

MID-C7200

6/12 Volt Professional Battery Charger and Starter

- 2/10/40 Amp. • 2 Amp trickle charge, 40 Amp fast charge, 10 Amp slow charge, 80 Amp boost charge, and 225 Amp engine start.
- Two-hour timer with hold position for continuous charging application.
- Rugged professional quality handle.
- 8" rubber wheels make movement a snap.
- Heavy duty cable set is grounded, oil resistant, and built to last.
- High efficiency all-copper transformer windings.
- Professional automatic reset overload and short-circuit protection.
- Ammeter.



MID-C7300

6/12 Volt, Professional Battery Charger, Starter and Tester

- 10/60 Amp. • 60/10 Continuous amps, 60 Amp fast charge, 80 Amp boost, and 250 Amp engine start.
- Voltmeter for testing battery state of charge and alternator output.
- Two-hour timer with hold position for continuous charging application.
- Rugged professional quality handle.
- 8" rubber wheels make movement a snap.
- Heavy duty cable set is grounded, oil resistant, and built to last.
- High efficiency all-copper transformer windings.
- Professional automatic reset overload and short-circuit protection.
- Ammeter.



ASD-6018

Battery Charger, 6/12 Volt

- Wheeled battery charger.
- Fan cooled.
- 40 Amp for 6 & 12 Volt charging.
- UL Listed.

SPECIFICATIONS

U.L. Continuous Ratings	40/20/5 amps
Mfgs. Boost Rating	350 amps
U.L. Cranking Assist Rating	200 amps
A.C. Cord	6 ft., 16-3
D.C. Leads	6' ft., 6" AWG
Clamp Rating	400A



ASD-9060

10/2/55 Amp Automatic Charger, 6/12 Volt

- Automatic 12 volt settings turn off at full charge and turn back on if battery needs more power.
- Green LED signals "complete charge," red LED indicates "reverse hook-up."
- Separate selection for help starting vehicle.
- Manual 6 volt position for lower voltage requirements.



MID-C3500

12 Volt 6 Amp Auto Battery Charger

- Suitable for all automotive and light truck usage.
- Tough, space-saving design.
- Portable - goes anywhere needed.
- Delivers the right amount of charge every time.
- LED's show power on, charge in process, and charge complete.
- Safe - protected against reverse connection.

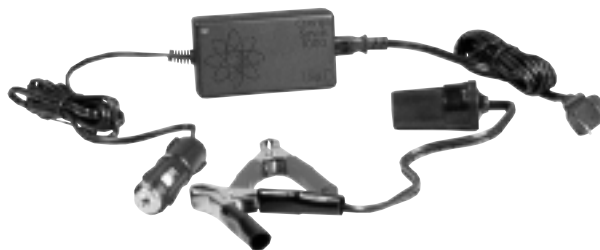


WARNING!

Wear safety goggles when using electrical equipment & batteries. Charger must be OFF when connecting or disconnecting leads. Keep flames and sparks away from batteries.

KC-1000

1 Amp Automatic Charger



- Fits our **KC-4000** Jump-N-Carry® 4000 or any jump starter fitted with a 12 volt outlet.
- Eliminates the risk of overcharging.
- Includes a set of color coded battery clips that easily attach to any battery.
- Worldwide compatible accepting any voltage between 100-240 volts at either 47-63 cycle (Hz).

ASD-6031

Alternator/Battery Tester



- Hand held tester for conventional and maintenance free batteries.
- Performs state of charge test, 125 amp battery load and starter draw test.
- Built in alternator tester tests for faulty regulators and defective output diodes.
- Also tests GM diodes Trios.
- Insulated clamp with 300 amp jaws.
- Side terminal adapters for quick connections on side terminal batteries.
- Recessed meter is protected from damage.
- Bracket on back of tester for convenient hang-up storage.

KA-4370

130 Amp Battery Load Tester

- Determines a battery's state of charge as well as cranking and charging volts.
- Delivers more accurate results than conventional 100 amp load testers.



KA-8100

Digital Technology Battery Tester

- Designed to provide accurate, reliable results in as fast as one second.
- 350-950 CCA Range; Supports CCA Scale.
- Works on 12 Volt batteries.
- 3 LED Status indicator.
- Temperature compensation.
- Made in the U.S.A.



KA-8300

Digital Battery Tester Plus

- Detects & identifies loose leads.
- Quick, one second initial results.
- 125-1400 CCA Range; Supports CCA Scale.
- 25 CCA Resolution.
- Works on 12 Volt batteries.
- 4-digit display shows CCA, voltage, and good/bad status.
- Temperature & low charge compensation.
- Made in U.S.A.



OW-C3165

Accuracy Plus Professional Battery Tester

- Provides complete battery diagnostic plus Quick Test and starter, charging, and electrical system tests.
- Tests most batteries down to a zero state of charge; Suspect batteries are rarely fully charged, but Accuracy Plus Professional tests deeply discharged batteries, down to 1 volt.
- Fast operating, test time: only 13 seconds for complete battery diagnosis with bad cell detection.
- Applies three different loads to ensure accurate testing.
- Displays actual CCA of the battery in only one second.
- Operating range: 50-2000 CCA.
- Complete electrical system troubleshooting and diagnosis; Full battery diagnostics include starter, alternator, diode ripple test, and bad cell detection.
- Results not affected by batteries with surface charge.
- Scroll feature to freeze test results.
- Works on 6 and 12 volt vehicle and marine batteries.
- Uses vehicle battery and internal, replaceable 9V battery.
- Display: 2 line, 16 character backlit, high energy, atomic green.



VEC-038

3-in-1 Socket Systems™

- Expand a single 12 Volt vehicle power socket into three 12 Volt outlets, including one outlet suitable for a cigarette lighter.
- Blue LED light illuminates and makes it easy to locate unit at night.
- 3 Position adjustable offset plugs allow for convenient positioning in any auto, truck, RV or marine application.
- Rugged, lightweight, easy to install and use - no maintenance necessary.
- Heavy duty 20 AMP automotive fuse.



KC-990044

Mini Portable Jump Start

- Provides 900 peak amps of starting power.
- Fully insulated grips on a 4-gauge 27" cable.
- Case is one piece construction.
- Lightweight for easy portability - only weighs 9 lbs.
- AGM sealed lead acid replaceable battery.
- 9-amp hour.
- Dimensions: 9"L x 8"H x 5"W.



KC-990681

JUMP-N-CARRY® PRO 660

- Provides 1700 peak amps of starting power.
- 12 Volt DC Power with automatic circuit protection against overloads.
- Built-in charger never gets lost.
- Grip Guards™ protect clamps and unit from foreign objects.
- Industrial duty clamps penetrate corrosion on battery terminals.
- High powered battery allows unit to be stored and used in any position.



SPECIFICATIONS

Battery Type	Sealed Lead Acid (AGM)
Battery Capacity	20 Amp Hour
Cable Length	46"
Cable Type	#4 Gauge Welding
Charger	500mA Automatic Charger
Indicator Display	Volt Gauge
Net Weight	18 lbs.

ASP-WPG103

Winchester™ Portable Power Generator

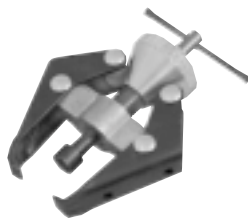
- 12 Volt DC power source; Peak: 1,100 Amps.
- High power AGM Technology (sealed lead acid) battery allows unit to be stored and used in any position.
- Insulated, flexible 400 Amp, 6 gauge jumper clamps; Can jump start over 35 cars on a single charge. Cables: 29" long.
- High surge 300 Watt inverter provides 110 Volt AC power anywhere.
- Built-in 110 Volt charger can hold a charger for over 6 months!
- Vertical Analog Voltmeter indicates battery charge level when the red status switch is pressed.
- Overload protection, automatic shut-off charging.
- Adjustable emergency light with friction position lock.
- Cigarette lighter socket: Standard 12V automotive accessory socket with black rubber cover and 20A self-resetting circuit breaker.
- Durable, long lasting case is resistant to chemicals, heat and cold.
- Insulated safety clamps prevent sparking.
- Voltage: 115 VAC RMS $\pm 5\%$; Frequency: 60Hz $\pm 4\%$.
- Weight: 21 lbs.



LS-54150

Battery Terminal and Wiper Arm Puller

- Dual purpose puller. • Removes stuck battery terminals. • Tighten knurled cone to force jaws under the cable clamp. • Turn center screw to lift clamp off terminal. • Also removes bolted on windshield wiper arms that fit over a tapered spline. • Puller screw pad is designed to fit the top of the spline post for easy pulling.



Battery Wrenches



- Designed for removal of 5/16" GM side terminal battery bolts. • Vinyl grip insulated handles. • Reversing lever for accessibility. • Reaches most battery side terminals. • Critical parts are heat-treated to ensure safety and long service. • Wrench handles are nickel-chrome plated for quality and appearance. • Works on all GM vehicles and on the following cars, but not limited to: W-Body: Buick Regal, Chevrolet Lumina and Monte Carlo, Pontiac Grand Prix; C-Body: Buick Park Avenue, Oldsmobile Ninety-Eight; Y-Body: Chevrolet Corvette; Pontiac Grand AM and Ford Aerostar.

PART NO.	DESCRIPTION
RB-6523	5-3/4" Wrench
RB-6525	9-3/4" Extra Long Wrench

ST-BC3

Slim-line Style Battery Cable Cutter

- Prepares battery cable for terminals. • Works well on bundled small wires. • Cuts soft cable cleanly, with no distortion. • Thin, sharp blades for firm hold. • Ground blade guide to minimize deflection. • Standard finish is conversion coat black oxide. • Long handles with broad vinyl cushion red grips. • Positive fastener (jamb not on joint) to maintain even pressure on ground inside surface of blades. • NOT FOR USE ON STEEL WIRES - cutters bear this caution! • Overall length: 7-1/2"; Handle length: 6"; Width: 1-1/4"; Thickness: 3/4". • Weight: 9 oz.; Capacity: 3/0 cable.



CCL-307

Cornwell Parrot Nose Plier

- Made of specially treated drop forged steel. • Lower jaw combines with reinforced rib to prevent handles from contacting each other. • Neon orange comfort grips. • Jaw Capacity: 5/8" (16mm). • Length: 7" (175mm).



PL-75-030

Battery Filler

- Shuts off automatically when battery cell is properly filled to prevent overfilling. • Features double action fast flow valve tip to prevent after drip. • Stops surface discharge caused by a wet battery. • Tough, bright blue polyethylene. • Safe to use with battery acid. • Two quart capacity.

PL-99-038 Replacement Tip



EC-S-501

Top Terminal and Battery Post Cleaner

- Brush will not twist loose. • Protective cover fits both ends. • Clean top terminals and top posts. • Great for any type of cable end. • Insures a great connection.



EC-S520

Side Battery Lifter

- Lifts side terminal and top post terminal batteries, including group 65 batteries. • Lightweight but strong. • Notched cross-member to prevent slippage. • Adjusts to pick up batteries 4-1/2" to 7-1/2" wide. • Pads are installed with super strong adhesive. • Non-slip vinyl covered insulated handle for firm, comfortable handhold.



EC-S-516

Side Terminal Battery Brush

- Clean away corrosion, and black insulation without removing the battery from vehicle. • Small center brush cleans threaded area, while circular brushes clean contact area. • Shines and cleans corrosion from cable end, including threaded area (with stud removed). • Use 1/4" ratchet handle or air impact drill.



EC-S541

4-in-1 Battery Post Cleaner

- Clean four different battery connections with one tool. • Clean side terminal, marine, Group 31 truck battery posts and cable ends and standard top post. • Saves storage space, time and costs while covering all of the above polishing jobs with one tool.



EC-S-504

Top Post/Top Terminal Cleaner/Reshaper

- Reshape positive and negative battery cable ends. • Firm staple cloth removes corrosion from top posts. • Insures a great connection. • Steel blades stay sharp. • Protective cover fits both ends. • Made from durable polypropylene.



PL-75-033

Battery Filler - Syringe Style

- Ideal for all fluids including battery acid. • Full 6 oz. capacity with 6" flex spout. • Rubber bulb remains pliable in cold weather.



EC-SP101

Battery Hydrometer

- Temperature compensating. • Obtain direct, accurate readings. • Wide range: 1.100 to 1.300 sg. • Unbreakable, easy to read, economical.

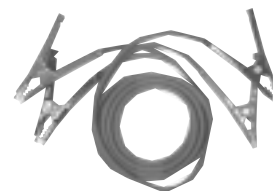


CC-08666

Automotive Heavy Duty Booster Cables

- 16 ft. heavy-duty 4 gauge booster cables featuring glow-in-the-dark polarity indicators. • 500 amp insulated no-shock Polar-Glo™ clamps. • Clamp grips to both top and side post batteries. • Extended jaw has grooves which conform to the side post, locking it in place. • UL listed.

CC-08903 Replacement 500 amp clamps - one red, one black, vinyl coated steel.



AIR CONDITIONING & COOLING



The Choice of Professionals®
- Since 1919 -

RA-C34800-2K

Cornwell Dual Refrigerant Recovery/Recycle/Evacuation/Recharge A/C Machine



- Dual unit for R-12 and R-134a refrigerants with automatic operation for simplicity; no clearing needed.
- Two built-in manifolds, two tanks, two compressors, and two electronic scales.
- Microprocessor control functions, scrolling display with user prompts, automatic air purge, single hook up, oil injection, super fast charging.
- Electronic scale automatically shuts off unit when the programmed amount of refrigerant has been recharged.
- Provides tank overfill protection.
- User friendly cabinet design-easy view control panel, easy access panel and handle.
- Two year warranty.

RA-C34700-2K

Cornwell R-134a Refrigerant Recovery/Recycle/Evacuation/Recharge A/C Machine



- Built in new "sidewinder" cabinet.
- Exceptional speed and accuracy.
- Has automatic refrigerant refill - maintains 12 to 15 pounds of refrigerant in an internal vessel and signals when it's time to change the supply tank.
- Automatic air purge eliminates damaging air without monitoring gauges or opening valves.
- Automatic oil drain removes captured oil and display reminds user to empty the bottle.
- Features electronic scale, internal storage vessel and internal manifold.
- Oil injector to add oil in seconds.
- Heavy duty compressor pulls from both sides during recovery.
- Two year warranty.

RA-C34500-2K

Cornwell R-134a Recovery/Recycling/Recharging A/C Machine



- Easy to use, economical unit.
- Recovers, recycles and recharges with just one hook-up.
- Pulls refrigerant from system during recovery to save time.
- Electronic scale makes it simple to recharge to factory specs.
- Weighs recovered refrigerant and provides tank overfill protection.
- Microprocessor signals when time to change filter-drier and drain the system oil.
- Filter-drier is replaceable for fast changeovers.
- Electronic air purge.
- Unit is extremely maneuverable.
- Large 4" diameter high and low side gauges.
- Easily changes between English and Metric units.
- Two year warranty.

SPECIFICATIONS

Voltage	115V 60Hz
Refrigerant Container	Two 30 lb. D.O.T. approved
Operating Range	50° to 120°F (11° to 49°C)
Pump Free Air Displacement	6 cfm
Scale Resolution	1/100 lb. (.02 kg.)
Recycling Filter/Drier	43 cu. in. spin-on
Weight	approx. 200 lbs.
Dimensions	46"H x 27"W x 32"D

SPECIFICATIONS

Voltage	115V 60Hz
Refrigerant Container	On-board 30 lb. (14 kg) vessel
Operating Range	50° to 120°F (11° to 49°C)
Pump Free Air Displacement	6 cfm
Recycling Filter/Drier	43 cu. in. spin-on
Weight	180 lbs.
Dimensions	52"H x 33"W x 20"D

SPECIFICATIONS

Voltage	115V 60Hz
Refrigerant Container	30 lb. on-board vessel
Operating Range	50° to 120°F (11° to 49°C)
Pump Free Air Displacement	6 cfm
Recycling Filter/Drier	43 cu. in. spin-on
Weight	180 lbs.
Dimensions	52"H x 33"W x 20"D

IMPORTANT!

It is important to note that R-12 and R-134a refrigerants can NOT be mixed, because the PAG oil in R-134a is not compatible with R-12. This has required the automotive industry to use special fittings to prevent cross-contamination between the two types of systems or in some instances, dedicated service equipment for each refrigerant. Please use extreme caution when servicing air conditioning systems for proper refrigerant use.

SKY-8534

R-134a Service Center

SKY-8512

R-12 Service Center

SKY-8034

R-134a Recovery/Recycling Only

SKY-8012

R-12 Recovery/Recycling Only

**Contact your local
Cornwell Dealer for
complete details!**

- Simple function selection for complete A/C service.
- Automatic NCG (Air) Detection and Purge.
- Heavy duty 5 CFM Two-Stage vacuum pump.
- Vacuum Pump timer - 5 to 60 minutes.
- Automatic programmable charging.
- Refrigerant volume indication - indicates percentage full.
- Vacuum side oil charge.
- Vapor and/or Liquid Recovery - single pass recycling.
- Spin-On filter.
- Easy storage tank access.
- Control panel lights indicate job sequence.



RA-C34134-2K

Cornwell R-134a Refrigerant Recovery/Recycle/Recharge A/C Machine

- Combines simplicity and economy.
- Pulls refrigerant from the system during recovery and pulls the system into a vacuum prior to recharging.
- Has electronic scale to recharge to factory specifications.
- Microprocessor signals time to change the filter-drier and drain the system oil.
- High capacity filter-drier removes contaminants during single pass recycling.
- Manual air purge, two-way manifold and toggle switch to select either pounds or kilograms.
- Two year warranty.



SPECIFICATIONS

Voltage	115V 60Hz
Refrigerant Container	30 lb. refillable, D.O.T. approved
Operating Range	50° to 120°F (11° to 49°C)
Recovery Rate	1/2 lb. min.
Recycling Filter/Drier	43 cu. in. spin-on
Weight	65lbs.
Dimensions	45"H x 22"W x 28"D

SKY-134100

REMOVINATOR™



- Protects A/C service equipment from damage caused by leak sealants.
- Removes sealants, dye and oil that can clog flow channels in service centers before they enter the machine.
- Eliminates costly repairs or machine replacement.
- Universal design works with and can be mounted on all R134a A/C service centers.

RA-15195

R-12/R-134a Combination Inlet Fitting



- Convert existing vacuum pump to R-12 and R-134a capabilities.
- Solid brass "tee" replaces the inlet fittings on RA-15200 series vacuum pumps.
- Includes a branch with a 1/4" MFL fitting for R-12 and a branch with a 1/2" Acme fitting for R-134a.

MCL-91390

R-12 Service Port Thread Repair Tool

- Recuts stripped R-12 service port threads.
- All in one design for 1/8, 3/16 & 1/4 service ports.
- Ensures that the R-134a retrofit adapters will fit securely.



MCL-80085

R-134a Service Port Reamer

- Deburrs and chamfers R-134a service ports in one easy motion.
- Eliminates burrs which can nick or cut coupler O-rings and cause couplers to leak.



RA-34430

Quick Change Filter



- Specially blended for maximum acid and moisture removal.
- For older RA-17700A, RA-34450, RA-34700 series.

Oil Injectors



- Installs on low side of manifold.
- Anodized aluminum body with ball valve.
- 2 oz. capacity.
- Compatible with all oils and dyes.

PART NO.	DESCRIPTION
CW-TLJ2	R-12, 1/4" SAE Pro-Set® Ball Valve
CW-TLJ4	R-134a, 1/2" ACME Pro-Set® Ball Valve; compatible with both PAG or ESTER oil

MCL-81175

Popular Straight Retrofit Adapter Kit



- Economical assortment of low side and high side air conditioning adapters to retrofit R-12 to R-134a service port configurations.
- All retrofit adapters include built-in valves and caps.
- Kit includes:

QTY.	PART NO.	DESCRIPTION
10	MCL-82274	Low Side, 1/4" (7/16"-20) x 13mm, Low Side
5	MCL-82332	High Side, 1/4" (7/16"-20) x 16mm, High Side
5	MCL-82357	GM High Flow Replacement
10	MCL-82358	High Side, 3/16" (3/8"-24) x 16mm, High Side
5	MCL-81297	1/4" (7/16"-20) Termination (Block Off) Caps
5	MCL-81379	3/16" (3/8"-24) Termination (Block Off) Caps
10	MCL-81359	R-134a Retrofit Information Labels
1	MCL-MC98RG	Retro fit Guidelines Booklet

Retrofit Adapter Kits



- Designed for individual system conversions from R-12 to R-134a.
- Kits include adapters with caps and valve cores, Ester oil and retrofit information labels.

PART NO.	FITS:
MCL-81360	1991 & later GM with two piece High Flow high side service port
MCL-81361	1976 & later GM, 1981 & later Ford and Chrysler vehicles with 3/16 high side service port
MCL-81362	1975 & earlier GM, 1977 & earlier Ford and Chrysler

MCL-91337

R-12/R-134a Valve Core Assortment



Set Includes the following in a clear acrylic box:

QTY.	NO.	DESCRIPTION
20	0377-001	Access Valve Core
10	0378-001	Valve Core
10	0531-001	R143a JRA High/Low Import Valve Core
5	0768-001	R134a Domestic High Flow Valve Core M8
5	0769-001	R134a Domestic High Flow Valve Core M10
1	MCL-81290	R12/R134a Valve Core Remover/Installer

MCL-58490

R-12/R-134a Master Valve Core Remove/Install Kit



- Service valve cores without losing the system charge.
- Unique design offers a locking device that holds the shaft in place while removing or installing the valve core.
- Kit covers all R-12 and R-134a system valve cores.

Consists of one each of the following:

PART NO.	DESCRIPTION
58490-001	Valve Assembly
58490-002	R-134a high side 16mm con.
58490-003	R-134a low side 13mm con.
58490-012	1/4"FL swivel connector
58490-377	Std. valve core R/I assembly
58490-378	GM large bore valve core remover/installer assembly
58490-531	JRA R-134a valve core remover/installer assembly
58490-768	Eaton R-134a low side valve core R/I assembly
58490-769	Eaton R-134a high side valve core R/I assembly
91494	Adapter 1/4"-M x 3/16"-F high side GM/Ford
91495	Adapter 1/4"-M x 1/8"-F high side Ford
58490-PB	Plastic molded box

MCL-81290

Valve Core Remover and Installer



- Double ended for easy replacement of standard and large bore valve cores for R-12, standard and JRA (M6), EATON (M8 & M10) valve cores for R-134a.

MCL-91290

Universal Valve Core Remover



- Double ended for easy replacement of standard and GM R-12 large bore valve cores.

CW-TLVC810

R-134a Valve Core Tool



- 8/10MM valve core remover and installer.
- Car, truck and off road applications: GM - Cavalier, Sunfire, Sunbird, Camaro, Firebird and all Cadillacs starting in 1998; Jeep ZJ Wrangler; Ford Mystique and Concorde, and F Service truck; Select Chrysler models; John Deere, Volvo, GMC, Freightliner, Navistar 900, Cab Over and Conventional models.

MCL-91491

GM Large Bore Valve Core Remover/Installer



- Removes and installs service valve cores without losing system charge.
- Speeds recovery and recharging.
- Ball valve design controls refrigerant flow with 1/4 turn of valve lever.

RA-15234

R-12 and R-134a Vacuum Pump



- Lightweight 1.2 cfm vacuum pump with two stage design.
- Factory rated to pull to 50 microns.
- Features offset rotary vane design and 1/8 hp motor.
- Ideal for up to 10 tons; passenger cars; domestic refrigeration.
- 1/4" MFL and 1/2" Acme intake fittings.
- Dimensions: 8-1/2"H x 4-1/4"W x 9-1/2"L.
- Weight: 10 lbs. (4.5 kg).

SPECIFICATIONS

Voltage	110-115V, 50-60 Hz.
Free Air Displacement	1.2 cfm
Oil Capacity	5 oz. (148 ml)

RA-15434

R-12 and R-134a High Performance Vacuum Pump



- Dual inlet 1/2" ACME & 1/4" MFL for both R-12 and R-134a.
- For up to 30 tons; panel trucks, RV's; automotive systems.
- 4 CFM two stage design with 20 micron factory rating.
- Iso-Valve™ isolates pump from system to measure the rate of rise.
- Offset rotary vanes and heavy duty 1/3 HP motor.
- Oil fill port and angled oil drain valve.
- Dimensions: 9-3/4"H x 5-5/8"W x 15"L.
- Weight: 27 lbs.

SPECIFICATIONS

Voltage	115V 60 Hz
Free Air Displacement	4 CFM
Oil Capacity	15oz.



WARNING!

Wear safety goggles, shield and protective clothing when working with refrigerant equipment and systems. Read operating instructions thoroughly.

MCL-90062

R-12/R-134a Vacuum Pump

- Manifold valve isolates pump from the system when testing for leaks.
- 1/4" flare and 1/2" ACME inlet ports.
- Gas ballast valve helps prevent oil contamination caused by high moisture.
- Center oil fill port is accessible from front as well as sides.
- Internal check valve stops oil blow out into the system during power outages.
- Oil drain valve positioned at bottom of oil reservoir assure maximum drainage.
- Made in U.S.A.



SPECIFICATIONS

Free Air Displacement	2 CFM
Ultimate Vacuum	70 microns
Number of Stages	Single
Motor	1/3 HP
Pump Speed	1725 RPM
Electrical Specs	110V/60Hz
Shipping Weight	28 lbs.

RA-34970

Air™ Vac Vacuum Pump



- Dual inlet for R-12 and R-134a.
- Easy to use - unique venturi design runs on shop air.
- Rugged Lexan® case is both oil and scratch resistant and incorporates a convenient handle.
- Compressed air driven, no oil or moving parts to be replaced.
- Dimensions: 4-1/2"H x 4"W x 7-1/2"D
- Weight: 2 lbs.

SPECIFICATIONS

Drive:	Compressed Air
Free Air Displacement:	1 CFM
Number of Stages:	Venturi
Input Pressure:	75 psi
Vacuum Rating:	29 in./Hg
Intake Fitting:	1/4" MFL and 1/2" Acme

RA-16600

Electronic Leak Detector

- Designed for all CFC, HCFC and HFC refrigerants.
- Leaks are detected by creating a high voltage corona discharge in sensing tip that when interrupted by refrigerant triggers an alarm.
- Specialized transformer consistently provides high voltage.
- The sensing tip is built with a mirror finish and is engineered for superior sensitivity and durability.
- Fits the user's hand comfortably.
- 16" gooseneck probe holds its position for one-handed operation.
- Features volume controlled audible leak indicators as well as visual leak indicators.
- Infinite threshold balancing control.
- Design certified by UL to meet SAE Specification J-1627 (1993) for R-12 and R-134a.



SPECIFICATIONS

Power Source	Four "AA" Alkaline batteries (included)
Battery Life	Approximately 25 hours
Dimensions	8-1/2"L x 3-1/4"W x 2"D (21.59cm x 8.26cm x 5cm)
Weight	1.14 lbs. (.52kg) with batteries

OW-TI-RX-1A

Refrigerant Leak Detector

- High and low sensitivity levels.
- Detects all halogenated refrigerants.
- Six segment tri-color visual leak size indicators.
- True mechanical pump provides positive airflow through sensing tip.
- One touch reset.
- Tactile keypad controls.
- Features microprocessor controlled circuit with advance digital signal processing.
- Certified to SAE J1627, CE approval. UL classified.
- Cordless and portable, operates on 2 "C" cell batteries.
- 14" flexible stainless steel probe with Teflon® liner.
- Includes carrying case.



SPECIFICATIONS

Operating Range	30° to 125°F (0° to 52° C)
Ultimate Sensitivity	Less than 0.25 oz/yr (7 gr/yr)
Sensing Tip Life	Approx. 20 hours
Duty Cycle	Continuous
Response time	Instantaneous
Reset Time	One second
Power Source	2 "C" cell alkaline batteries
Unit Dimensions	9" x 2.25" x 2.25" (22.9cm x 5.7cm x 5.7cm)

OW-TI-ZX1

Heated Sensor Leak Detector

- Patent Pending Heated Pentode™ sensor technology.
- Refrigerant specific detection.
- Detects all halogenated refrigerants at levels below 0.1 oz./yr.
- Tri-color visual leak size indication.
- Tactile keypad controls with one touch reset and adjustable sensitivity.
- True mechanical pump provides instant response and clearing.
- Sensor failure indication
- Ni-Cad rechargeable batteries.
- Flexible stainless probe.
- Carrying case and recharger included.
- Meet SAE J1627, CE approved.
- Made in USA.



SPECIFICATIONS

Sensitivity	0.5 oz/yr (14 gr/yr) for R-134a, R22 and R12
Ultimate Sensitivity	Less than 0.1 oz/yr (3 gr/yr) R-134a, in high sensitivity; as low as 0.05 oz/yr R-12 in low sensitivity
Warm Up Period	20 seconds
Sensor Life	100 to 150 hours
Operating Temperature	32 to 122°F (0 to 50°C)
Power Supply	Ni-Cad standard, Ni-MH optional
Unit Dimensions	10.25"L x 2.25"Dia. (26cm L x 6.5cm Dia.)
Weight	Approximately 16 oz. (452 grams)

MCL-55200

"Inspector™" 2-In-1 Electronic/UV Leak Detector

- Perform electronic and UV Leak Detection with one tool.
- Incorporating both electronic and UV technology into one unit insures that even the toughest leaks can be found.
- Offers six levels of intensity (15 levels of detection) with a tri-colored LED indicator.
- Pin-point leaks as small as 1/10 oz. (3 gr) per year.
- Ultra bright UV light is built into the end of the probe, allowing easy access into tight areas.



RA-MG12134

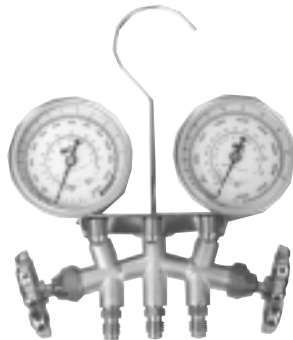
Dual R-12/R-134a Manifold Gauge Set



- Can easily and safely be used on either R12 or R134a systems. • Shock-proof adjustable gauges. • Set includes the following: anodized aluminum manifold with convenient front mounted valves, standard 72" 1/4" MFL hose set for R12 applications, 72" R134a hose set with high and low side snap couplers and 1/2" internal ACME fitting on the charge line, couplers and 1" dial thermometer (0°F to 220°F).

MCL-35772

R-12 2-Way Brass Manifold Gauge Set

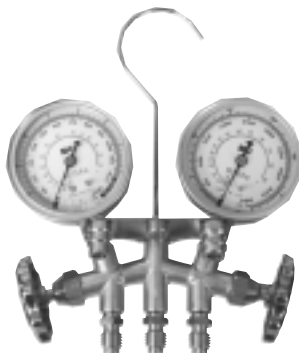


- Heavy-duty forged body. • Large angled all metal handles. • Free floating piston type valves reduce o-ring wear. • Hose holder for convenient storage. • Set of three (3) 72" standard hoses with auto shut-off valves. • Hose connections are 1/4" SAE. • Silicone dampened gauges smooth out needle movement. • Gauges can be recalibrated in the field to maintain accuracy. • Extra large sight glass for visual refrigerant check. • 2-1/2" gauges include R12, R22, R502 in PSI and F°.

MCL-84000 R-12 Manifold Overhaul Kit
MCL-85350-RR R-12/R134a Low-Side Replacement Gauge
MCL-85500-RR R-12/R134a High-Side Replacement Gauge

MCL-84772

R-134a 2-Way Brass Manifold Gauge Set



- Heavy-duty forged body. • Large angled all metal handles. • Free floating piston type valves reduce o-ring wear. • Hose holder for convenient storage. • Set of three (3) 72" hoses with manual couplers; blue and red are 14mm-M and yellow is 1/2" ACME-F with auto-shut off valves. • Silicone dampened gauges smooth out needle movement. • Gauges can be recalibrated in the field to maintain accuracy. • Extra large sight glass for visual refrigerant check. • 2-1/2" gauges in PSI/Kpa.

MCL-85000 R-134a Manifold Overhaul Kit
MCL-85350-RR R-12/R134a Low-Side Replacement Gauge
MCL-85500-RR R-12/R134a High-Side Replacement Gauge

MCL-98772-CN

Dual R-12/R-134a Aluminum Manifold Gauge Set with Hoses

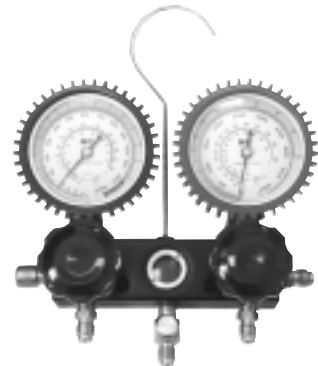


- Handles both R-12 and R-134a refrigerants. • Aluminum block manifold. • Large sight glass for monitoring refrigerant flow. • Silicone dampened gauges eliminate needle bounce. • Set includes gauge, three (3) 72" R-12 hoses with automatic shut-off valves, three (3) 72" R-134a inner nylon layered hoses and R-134a manual couplers. • Made in U.S.A.

MCL-85350-RR R-12/R134a Low-Side Replacement Gauge
MCL-85500-RR R-12/R134a High-Side Replacement Gauge

MCL-95772G

R-12 2-Way Aluminum Manifold Gauge Set with Gauge Protectors

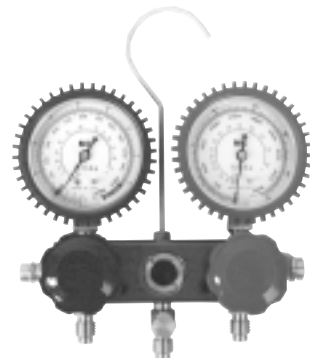


- Solid extruded aluminum body. • Free floating piston type valves reduce o-ring wear. • Extra access port for vacuum line. • Silicone dampened gauges smooth out needle movement. • Gauges can be recalibrated in the field to maintain accuracy. • Extra large sight glass for visual refrigerant check. • Large easy to grip knobs. • Set of three (3) 72" standard hoses with auto shut-off valves. • Hose connections are 1/4" SAE. • 2-1/2" gauges in PSI and F°.

MCL-84000 R-12 Manifold Overhaul Kit
MCL-85350-RR R-12/R134a Low-Side Replacement Gauge
MCL-85500-RR R-12/R134a High-Side Replacement Gauge

MCL-89772G

R-134a 2-Way Aluminum Manifold Gauge Set with Gauge Protectors



- Solid extruded aluminum body. • Free floating piston type valves reduce o-ring wear. • Extra access port for vacuum line. • Silicone dampened gauges smooth out needle movement. • Gauges can be recalibrated in the field to maintain accuracy. • Extra large sight glass for visual refrigerant check. • Large easy to grip knobs. • Set of three (3) 72" hoses with manual couplers; blue and red are 14mm-M and yellow is 1/2" ACME-F with auto-shut off valves. • 2-1/2" gauges in PSI/Kpa.

MCL-85000 R-134a Manifold Overhaul Kit
MCL-85350-RR R-12/R134a Low-Side Replacement Gauge
MCL-85500-RR R-12/R134a High-Side Replacement Gauge

MCL-46372

3 Piece R-12 72" Nylon Barrier Charging Hose Set



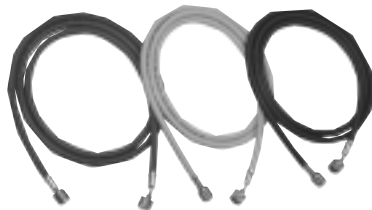
- Knurled brass nuts make finger tightening easy.
- Crimped with 8 segment dies for secure fit and maximum durability.
- Tested for working pressure of 800 psi and burst pressure of 4,000 psi.
- Auto Shut-off valves 1/4" SAE retain refrigerant in the service hose when they are removed from the system.
- Meet EPA, SAE, and UL standards for containment of refrigerant.

Set includes the following hoses:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MCL-46721	Blue	MCL-46723	Red
MCL-46722	Yellow		

MCL-45372

3 Piece R-12 72" Standard Charging Hose Set



- Knurled brass nuts make finger tightening easy.
- Crimped with 8 segment dies for secure fit and maximum durability.
- Tested for working pressure of 750 psi and burst pressure of 3,000 psi.
- Auto Shut-off valves 1/4" SAE retain refrigerant in the service hose when they are removed from the system.
- Meet EPA, SAE, and UL standards for containment of refrigerant.

Set includes the following hoses:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MCL-45721	Blue	MCL-45723	Red
MCL-45722	Yellow		

MCL-84372

3 Piece R-134a 72" Barrier Charging Hose Set



- Knurled brass nuts make finger tightening easy.
- Crimped with 8 segment dies for secure fit and maximum durability.
- Tested for working pressure of 600 psi and burst pressure of 3,000 psi.
- Yellow hose comes with 1/2" Acme-F fitting with shut-off valve; blue and red hoses include male 14mm x 1.5 and 1/2" Acme-F fittings.
- Meet SAE J2196 specifications and are UL recognized.

Set includes the following hoses:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MCL-84721	Blue	MCL-84723	Red
MCL-84722	Yellow w/shut-off		

MCL-85200

Deluxe A/C Service Repair Kit



- Replacement gaskets, depressors, o-rings and nylon guides for charging hoses and adapters.

Kit Includes the following in a plastic box:

QTY.	PART NO.	DESCRIPTION
10	42010	1/4" Gasket
10	42014	1/4" Depressor
10	80034	O-Ring for MCL-82834
5	80034-1	High Side Nylon Guide
10	80134	O-Ring for MCL-82934
5	80134-1	Low Side Nylon Guide
10	82010	Gasket for R134a Hose
10	82336	Gasket for MCL-82335
10	83341	O-Ring for R134a Hose
10	90336	Gasket for R-12 Shut-Off Valve

MCL-91177

R-12 Popular Adapter Set



- Popular hose-end adapters packed in a special storage case.

Set includes the following:

PART NO.	DESCRIPTION
MCL-90335R	1/4 x 1/4 Shut-off
MCL-90337	1/4 x 3/16 Shut-off
MCL-90338	GM 1991 & Later Service Adapter
MCL-90340	1/4 x 1/8 90° Shut-off (Ford high side)
MCL-90354	1/4 x 3/16 90° Shut-off
MCL-90367	Quick disconnect (Ford)
MCL-91185	GM large bore quick disconnect

RA-10237A

Fits-All Adapter Kit



- Make connections to access ports on vehicle air conditioning systems.
- Fits most vehicles with R-12 A/C systems.

Kit consists of the following:

PART NUMBER	FITTING TYPE	DIMENSION
RA-10236	6" Flexible, blue	1/4" MFL x 1/8" FFL
RA-10469A	90° Brass	1/4" MFL x 3/16" FFL
RA-10470A	6" Flexible, red	1/4" MFL x 3/16" FFL
RA-10778	6" Flexible, yellow	1/4" MFL x 1/4" FFL
RA-40563A	90° Brass	1/4" MFL x 1/4" FFL



WARNING!

Wear safety goggles shield and protective clothing when working with refrigerant equipment and systems.

MCL-90262

Straight Manual Shut-Off Valve Set



- Ball valve design with flexible hose controls refrigerant with a quarter turn of the valve handle.
- Meets SAE, EPA and UL requirements for containment of refrigerant.
- Can be operated with one hand.
- Screws onto charging hose end.

Set includes the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MCL-90263	Blue 1/4 x 1/4	MCL-90265	Red 1/4 x 1/4
MCL-90264	Yellow 1/4 x 1/4		

Straight Adapters



PART NO.	DESCRIPTION
MCL-90274	1/4 MFL x 1/4 FFL Swivel
MCL-90332	1/4 MFL x 1/4 FFL Anti-Blowback Fitting (Includes check valve Core 0332-002)
MCL-90357	1/4 MFL x 3/16 FFL (High Side) Swivel
MCL-91084	1/4 MFL x 3/16" FFL (High Side) Swivel Adapter GM 1976 and later, Ford 1981 and later (Includes Access Valve Core 0377-001)

Brass Access Valve Adapters



- For hooking up A/C systems for evacuation and recharging of most passenger cars.
- Longer valve core depressors work on standard and deeper valve cores.

PART NUMBER	FITTING TYPE	DIMENSION
RA-10468A	Straight	1/4" MFL x 3/16" FFL
RA-10469A	90°	1/4" MFL x 3/16" FFL
RA-40563A	90°	1/4" MFL x 1/4" FFL

RA-40082 1/4" Valve Core Depressors

RA-40083 1/4" Hose Gaskets

MCL-90358

Straight High Side Adapter



- 1/4 MFL x 3/16 FFL.
- Includes access valve core (0377-001).

MCL-82634

Straight Adapter



- 1/4 FFL (7/16"-20) x 1/2 ACME-M.
- Includes access valve core (0377-001).

MCL-90338

Straight Service Adapter



- For GM 1991 and later vehicles.
- Includes access valve core (0377-001).



WARNING!

Wear safety goggles shield and protective clothing when working with refrigerant equipment and systems.

Straight Automatic Shut-Off Valves



- Simple valve screws onto hose end.
- Meets SAE, EPA and UL requirements for containment of refrigerant.

PART NO.	DESCRIPTION
MCL-82335	1/2 ACME x 1/2 ACME
MCL-90335R	1/4 MFL x 1/4 FFL
MCL-90337	1/4 MFL x 3/16 FFL

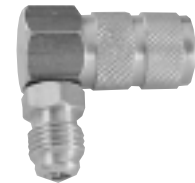
MCL-90333

90° Automatic Shut-Off Valve



- 1/4"MFL x 1/4"FFL.
- Simple valve screws onto hose end.
- Meets SAE, EPA and UL requirements for containment of refrigerant.

90° High Side Shut-Off Adapters



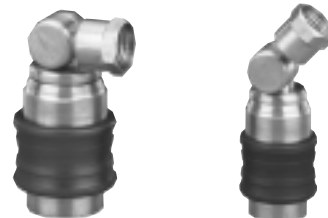
PART NO.	DESCRIPTION
MCL-90340	1/4 MFL x 1/8 FFL; for Ford 1977-1980 (Includes Access Valve Core 0377-001)
MCL-90354	1/4 MFL x 3/16 FFL; for GM 1976 and later (Includes Access Valve Core 0377-001)

90° Quick Disconnect Adapters



PART NO.	DESCRIPTION
MCL-90367	Ford 1977-1980 (High Side)
MCL-91185	GM Large Bore for late model vehicles

R-134a 90° E-Z SNAP™ Couplers



- Color coded.
- Patented design easily attaches to service ports under any pressures.
- E-Z Snap™ adjusts to various service port dimensions for immediate access to the A/C system.
- Swivel feature provides flexibility even in tight quarters.

PART NO.	COLOR	DESCRIPTION
MCL-82214	Red	High Side, 14mm-F x 16mm
MCL-82224	Blue	Low Side, 14mm-F x 13mm

R-134a Manual Couplers

- Adjusts easily to R-134a service ports with varying dimensions.
- All metal construction.
- Patented spring loaded depressor will not damage service valves.
- Can be removed from service port without losing refrigerant regardless of knob position
- Meet SAE, UL and EPA recommendations for containment of refrigerant.
- Color coded.



PART NO.	COLOR	DESCRIPTION
MCL-82834	Red	High Side, 14mm-F x 16mm
MCL-82934	Blue	Low Side, 14mm-F x 13mm

RA-11014

R-12 Valve Core Remover

- Designed for use in servicing late model GM cars with deeper valve cores.



RA-10588

R-134a Valve Core Remover

- Engineered for use when servicing deeper core R-134a A/C systems.



R-134a Octagon Service Port Sockets

- Specially designed thin wall sockets for eight-sided retrofit adapters.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MCL-98134	Low Side	MCL-98234	High Side

MCL-91207

Gasket and Depressor Assortment

- Replacement gaskets, o-rings, and depressors for charging hoses and adapters.

Includes the following:

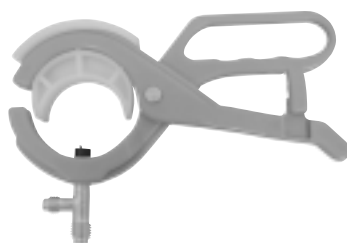
PART NO.	QTY.	DESCRIPTION
MCL-42010	3	1/4" Gasket
MCL-42014	3	1/4" Depressor
MCL-90341	3	1/8" O-ring
MCL-90368	3	3/16" Depressor
MCL-90369	3	3/16" Gasket



MCL-85530

3-in-1 Side Mount Can Tap Valve (US Standard)

- Covers 2-7/8" (R-134a), 2-1/2" (R-12) and 2" (OIL) charge cans.
- Includes 1/2" ACME-M and 1/4" FL-M ports.
- Internal safety check valve prevents system backflow.



MCL-85510

R-134a Can Tap Valve

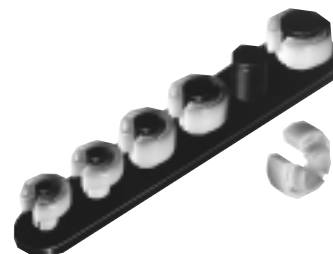
- Screw-on design for R-134a ACME male can taps; Specially designed for 16-ounce and smaller R-134a cans.
- All metal construction for durability and long life.
- Gasket assures leak proof operation.
- Built-in safety check valve.
- Exclusive "full grip" valve knob.
- 1/2" ACME-M.



CLS-37000

Cornwell Air Conditioning/Fuel Line Disconnect Tool Set

- Easily disconnect air conditioning lines and quick connect fuel lines.
- Set of 6 tools which disconnect the spring lock coupling on Ford and Chrysler air conditioning lines.
- Works on fuel line quick connect couplings found on GM, Ford and Chrysler.
- 5/16" size fits on push lock connectors found on Ford radiators and transmission lines.
- Set includes sizes: 5/16", 3/8", 1/2", 5/8", 3/4" and 7/8".



KD-3290

Ford A/C And Fuel Line Spring Lock Coupling Tool

- Required for separating the spring coupling on A/C and fuel lines on Ford vehicles 1981 through current.
- Release locking mechanism on all four sizes.
- Four sizes referenced on tool: A-3/4", B-5/8", C-1/2" and D-3/8".



OW-7238

A/C Spring Lock Coupling Tools

- Quickly separate spring-lock refrigerant pressure lines on the air conditioning systems of 1981 to 2002 Ford vehicles, and 1994 to 2002 Chrysler and Jeep vehicles.
- Spring-loaded in the closed position to deflect spray that occurs when a line is disconnected.



PART NO.	SIZE	PART NO.	SIZE
OW-7239	3/4" - white	OW-7241	1/2" - blue
OW-7240	3/8" - red	OW-7242	5/8" - black

Clutch Plate Removers and Installers

- Designed to remove the clutch for access to the shaft seal and to reinstall the clutch.
- Constructed of hardened steel with fine threads.
- Allows work in limited spaces.



PART NO.	DESCRIPTION
RA-10861	Standard threaded for A6 & R4; black oxide finish
RA-41067	Metric threaded for V5, DA6 and HR6; zinc oxide finish

RA-11009

Clutch Plate Remover

- Remove stubborn clutches on Ford FS6 and Chrysler C-171 compressors.



MCL-91000A

Deluxe A/C Clutch Hub Puller/Installer Kit

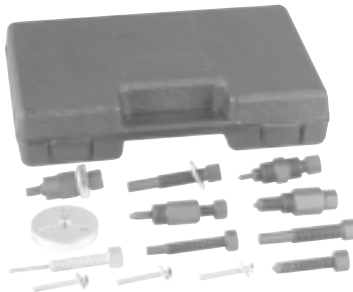
- Use to remove and install A/C clutch hubs on GM, Ford, Chrysler, and imports. • Includes a compressor identification chart in a custom-molded box.



- MCL-90454** GM Clutch Plate Remover
- MCL-90458** GM Clutch Plate Installer
- MCL-90902** Sankyo Clutch Plate Puller
- MCL-91122** Clutch Plate Remover
- MCL-91195** GM Clutch Plate Remover Arbor
- MCL-91212** GM DA6 Clutch Plate Remover
- MCL-91260** Clutch and Plate Arbor
- MCL-92260** Cone

OW-C4535

A/C Clutch Hub Remover/Installer Set



- For damage-free removal and installation of the clutch hubs on these air conditioning compressors: GM-Harrison DA-6, HR-5, V-5, A-6 and early R4; Nippondenso Ford/Chrysler A590, C171, FS-6, 6P148A (new style); Sanden & Sankyo; York/Tecumseh HR980; Zexel/Mitsubishi CH series. • Set includes a removing flange, plus forcing screws and adapter assemblies to remove and install virtually all clutch hubs. • Includes blow-molded plastic case. • Weight: 5 lbs., 5 oz.

RB-404

A/C and Refrigeration Ratcheting Box Wrench

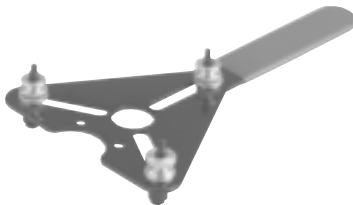


- "Finger tip" reversing feature on both ends. • Opening sizes: 3/8"-5/16" square x 1/4"-3/16" square. • Overall Length: 5-1/2".

OW-C4537

A/C Clutch Holding Tool

- This three-stud spanner wrench keeps the A/C clutch from turning when loosening or tightening the retaining nut. • Adjusts quickly with brass thumbscrews to fit various styles of A/C compressors used on GM, Ford, and Chrysler vehicles. • Also fits a variety of other pulleys. • Weight: 0 lb., 13 oz.



WARNING!

Wear safety goggles, shield and protective clothing when working with refrigerant equipment and systems. Read operating instructions thoroughly.

MCL-92311

Deluxe A/C Orifice Tube Service Kit

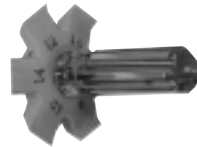
- Five piece universal kit for removing and installing any style orifice tubes. • Comes in a custom molded box.



RA-18400

Multi-Head Fin Straightener

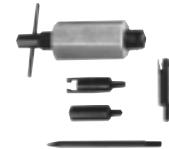
- Six-in-one straightener to clean and straighten condenser and evaporator coil fins having spacings of 8, 9, 10, 12, 14, and 15 fins per inch. • Compact, easy to use in confined spaces. • Straightener section is 3-1/8" in diameter; handle is 3-1/2" long.



RA-10972B

Orifice Tube Remover

- Use to remove orifice tube before flushing. • Speeds service by removing the build up of particulates on the orifice screen and restrictions that slow flushing. • Remove complete or damaged tubes in '81 and later Ford and GM cars. • Works on GM and Ford vehicles and comes with extender body for 1985 & later Ford models; adapter for '89-'91 GM "J", "L", and "N" cars; adapter for '91 and on GM "C" and "K" trucks with #3096068 orifice.



Dial Thermometers

- Rugged pocket thermometer with case and clip. • Range: 0°F to +220°F, ±1 division accuracy. • Recalibration nut. • Plastic water tight magnifying dial cover. • Stainless steel construction.



PART NO.	DIAL SIZE	PART NO.	DIAL SIZE
UE-T220	1"	UE-T220/3	1-3/4"

OW-43230

Swivel Head Digital Thermometer

- Full-feature capabilities. • Wide temperature range and highly accurate readings make this thermometer useful for a variety of applications. • Accurate readings from -40 to 390° F (±2°) and from -40 to 200°C (±1°). • Switch selects Celsius or Fahrenheit. • Sampling time is just one second; HOLD button freezes display for accuracy. • Easy to read display can be read even in direct sunlight. • Durable case includes a cover to protect the probe and is small enough to fit in a shirt pocket. • Uses one 1.5V battery; includes battery-saver mode. • Min./Max display for reading temperature ranges.



INFRARED NONCONTACT THERMOMETERS

- Fast, easy to use, and accurate; wide temperature range.
- Just point, shoot and read.
- Lightweight, compact, rugged rubber overmolding, easy to use.
- Hard carrying case, clear LCD backlit display; Display hold (7 seconds).
- Applications: Automotive and diesel engines, facility maintenance, asphalt work, fire safety, marine maintenance, HVAC/R work, food safety, industrial/electrical problems.
- Accuracy: $\pm 1\%$ of reading or $\pm 1^\circ\text{C}$ ($\pm 2^\circ\text{F}$), whichever is greater @ 23°C (73°F) ambient operating temperature.
- Repeatability: $\pm 0.5\%$ of reading or $\pm 1^\circ\text{C}$ ($\pm 2^\circ\text{F}$), whichever is greater.
- Response Time: ≤ 500 mSec, 95% of reading.
- Ambient Operating Range: 0 to 50°C (32 to 150°F).
- Dimensions: $200 \times 160 \times 55\text{mm}$ ($8 \times 6 \times 2\text{in}$).
- Power: 9V Alkaline or NiCad battery.
- Weight: 11 oz. (320 g).

RE-ST20

- Emissivity: Preset to 0.95 .
- Single point laser sighting.
- MAX temperature display.
- Distance to Spot Size - $12:1$.
- Temperature display: 0.2°C (0.5°F).
- Temperature range: -32° to 400°C (-25 to 750°F).



RE-ST30

- Emissivity: Preset to 0.95 .
- Laser (Class II): 8 point circular laser sighting.
- MAX temperature display.
- Distance to Spot Size - $12:1$.
- Temperature display: 0.2°C (0.5°F).
- Temperature range: -32° to 545°C (-25 to 950°F).



RE-ST80

- Emissivity: Adjustable.
- Laser (Class II): 8 point circular laser sighting.
- MAX, MIN, DIF and AVG temperature display.
- Recall last reading.
- HI/LO alarm.
- Distance to Spot Size - $50:1$.
- Temperature display: $0.1^\circ\text{C}/^\circ\text{F}$.
- Temperature range: -32° to 760°C (-25 to 1400°F).
- Includes probe jack for an RTD temperature probe.



THE SIX MAJOR POINTS OF HAND TOOL SAFETY

1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

RE-MT4

Mini-Temp Infrared Thermometer with Laser Point™

- Pocket sized and easy to use.
- Powered by 9V alkaline battery or NiCd battery.
- Displays temperatures in either $^\circ\text{C}$ or $^\circ\text{F}$.
- Troubleshoot engines including ignition system problems and fuel/air adjustments.
- Diagnose cooling systems including thermostats and coolant sensors, radiators, plus brakes and tires.
- Balance room temperatures, monitor supply/return registers, check furnace performance, perform energy audits and check window insulation.
- Other uses include electrical and food safety temperatures, plus many other uses at home, work and recreational applications.



FEATURES

Emissivity	Pre-set to 0.95
Laser	Class II
Display hold	7 seconds
LCD	backlight
Temperature display	-18 to 275°C (0 to 525°F)
Distance to Spot Size	$8:1$
Dimensions	$6" \times 4" \times 1.5"$ ($152 \times 101 \times 38\text{MM}$)
Weight	0.5 lbs. (227g)

RE-ST25

AutoPro™ Infrared Thermometer

- Features SmartSight™ bright dual laser sighting system - merges into a single laser point when unit is at the optimal distance from the object being measured.
- Provides an easy, accurate response from a close distance.
- Pinpoint actual measurement area 13mm ($0.5"$) from a close distance 200mm ($8"$) and obtain instantaneous result with 1% accuracy.
- Bright white LED illuminates work area.
- Removable, powerful magnet is attached to the base for handy, safe storage.
- Includes a detailed, illustrated manual covering automotive diagnostic applications such as engine misfires and emissions problems, catalytic converters, engine troubleshooting, wheel hubs/bearings, brake inspections, air conditioning, cooling systems, heaters/heater cores, and rear window defrosters.
- Also features MAX temperature display, display hold (7 seconds), and LCD backlit.



SPECIFICATIONS

Temperature Range	-32 to 535°C (-25 to 999°F)
Accuracy	$\pm 1\%$ at 23°C (73°F)
Response Time	<0.5 second (95% of reading)
Power	9V Alkaline or NiCd Battery
Battery Life (Alkaline)	4 hours
Laser (Class II)	SmartSight™ Dual Laser Sighting
Temperature Display	$^\circ\text{C}$ or $^\circ\text{F}$ selectable

ES-T50

Non-Contact Infrared Thermometer

- Measures $6"$ diameter target from $4'$ away.
- Features built-in laser pointer, $^\circ\text{F}/^\circ\text{C}$ switchable button, backlit LCD display, data hold, auto power-off, and over-range beeper.
- Applications include catalytic converters, air conditioners, heaters, radiators, engine troubleshooting, brake and tire inspections, coolant temperature, and more.
- Emissivity: Pre-set to 0.95
- Temperature range: -4° to 842°F (-20° to 450°C)
- Accuracy: $\pm 2\%$ of reading
- 9 Volt battery included.



RA-16350

Deluxe UV Detection Kit



- A complete UV detection kit to find auto leaks quickly, without mess, measuring, or calculations.
- Ultraviolet dye is injected and circulated throughout the A/C system refrigerant, then seeps out at the point of a leak. Using the UV lamp, the leak will glow brightly and be easily spotted.
- Kit includes: Powerful 50-watt/12-volt UV lamp with cord and battery clips, Injection gun with R-134a hose and R-12 adapter, Four universal A/C dye twist-on cartridges (1 oz. each) - enough dye for 20 applications [OEM-approved and SAE-certified dye], UV enhancing glasses with dye cleaner, and Service stickers.

RA-16355

UV Dye Injection Kit



- Kit designed for users who already have a UV lamp.
- Kit includes: Injection gun with R-134a and R-12 adapter, Four universal A/C dye twist-on cartridges (1 oz. each) - enough dye for 20 applications [OEM-approved and SAE-certified dye], and Service stickers.

UV-414500

SPOTGUN®/ MICROLITE UV Leak Detection Kit



- Kit includes: 50 watt 12 volt Microlite with 16 ft. cord, SpotGun® injector with R-134a and R-12 adapters, 8 oz. Universal A/C dye cartridge (services 64 vehicles), UV enhancing glasses and dye cleaner, and service stickers in a rugged storage case.

UV-415400

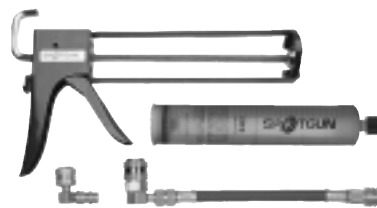
SPOTGUN®/ MEGALITE UV Leak Detection Kit



- Kit includes: 100 watt 12 volt Megalite with 16 ft. cord, SpotGun® injector with R-134a and R-12 adapters, 8 oz. Universal A/C dye cartridge (services 64 vehicles), UV enhancing glasses and dye cleaner, and service stickers in a rugged storage case.

UV-471500

SPOTGUN® Injector System



- Kit includes: SpotGun® injector system, R-134a with long hose and R-12 couplers, JUMBO 8 oz. Universal A/C dye cartridge (services 32 vehicles), and 32 service stickers.

UV-330000

Hawkeye Jr.™ UV Leak Detection Kit



- Kit includes: Injection gun with R-12 and R-134a adapters, 6 disposable 1/4 oz. (7.5 ml.) A/C dye cartridges (Certified to SAE-J2297 dye standards), 70° angled Microlite™ (50-Watt/12-Volt), UV enhancing glasses, Dye cleaner, Storage case, and 6 Dye-installed stickers.

UV-TOP-UP

Air Conditioning Oil Addition Kit



- Inject amount of oil needed from a convenient 8 oz. oil cartridge.
- Kit contains: SpotGun®, 8 oz. cartridge of 125 viscosity PAG oil and screw-on flexible applicator tube.

UV-CCK

TRACER-STICK® To SPOTGUN® Conversion Kit



- Upgrade existing system by attaching conversion adapters directly to Tracer-Stick® hoses.
- Eliminates need to change dye capsules.
- SpotGun® uses one large cartridge for 16 applications, slashing dye costs.
- Kit includes: 4 oz. cartridge A/C Universal dye for R-12 and R-134a (certified to meet SAE J2297 standards), SpotGun, R-12 and R-134a adapters and sixteen dye installed stickers.

UV-413001

Micro-Lite UV Lamp



- 12 volt, 50 watt lamp with 16 ft. (5m) cord, battery clips and rubber lens protection ring.
- Comes with UV enhancing glasses.

UV-461105 50 Watt
Replacement Bulb

UV-415001

Mega-Lite UV Lamp

- 12 volt DC, 100 watt UV lamp with 16 ft. (5m) cord and battery clips.
- Comes with UV enhancing glasses.

UV-461201 100 Watt Replacement Bulb



UV-471112

UV Enhancing Glasses



UV-483906

Radiator Coolant Dye

- Six individual application 1-oz.(30 ml.) packets of radiator coolant dye with 6 service stickers.



UV-399006

Hawkeye Jr.™ 1/4 oz. A/C Dye Cartridges

- Includes: 6 Disposable A/C Dye cartridges - 1/4 oz. (7.5 ml.) Good for 6 applications and 6 Dye-installed stickers.



UV-B499012

1/4 oz. Universal A/C Dye Bottle

- Each bottle services one vehicle. • Certified to meet SAE-J2297 dye standards. • Compatible with all refrigerant and oils. • Box of twelve (12) includes 12 service stickers.



UV-B499024

1 oz. Universal A/C Dye Bottle

- Each bottle services 4 vehicles. • Certified to meet SAE-J2297 dye standards. • Compatible with all refrigerant and oils. • Box of six (6) includes 24 service stickers.



UV-B483906

1 oz. Radiator Coolant Dye Bottle

- For detecting leaks in radiators, hoses/fittings, water pumps and head gaskets. • Each bottle services one vehicle. • Box of six (6) includes 6 service stickers.



UV-B483206

1 oz. Multi-Purpose Dye Bottle

- For detecting leaks in engine oil, transmissions, hydraulics, power steering, gas and diesel fuel systems. • Each bottle services one vehicle. • Box of six (6) includes 6 service stickers.



UV-487012

1/4 oz. Water Body Fluorescent Dye

- Accurately pinpoints and verifies the leak source to allow repairs in defective seals and weather-strips. • Mix one bottle (1/4 oz.) of fluorescent dye into a quart of water, made to fit a spray gun or atomizer; Water dye mixture will leak through to the inside of the car and can be detected easily with a UV lamp. • Cleans off easily with water after repairs. • Twelve (12) 1/4 oz. bottles per box.



RA-16255

Radiator Coolant Dye

- Pinpoint leaks in radiators, hoses/fittings, waterpumps, and head gaskets. • Six bottles for six applications. • Each bottle services one vehicle. • Service stickers included.



RA-16268

Multi-purpose Dye

- Pinpoint leaks in engine oil, transmission, power-steering, hydraulic, diesel and gasoline fuel systems. • Six bottles for six applications. • Each bottle services one vehicle. • Service stickers included.



RA-16356

Universal A/C Dye Cartridges

- Pinpoint leaks in A/C systems. • Four twist-on cartridges, 1oz. (30 ml) each. • Enough dye for 20 applications. • OEM-approved and SAE-certified dye. • Service stickers included.



UV-499108

Jumbo All-in-One A/C Dye Cartridge

- 8 oz. (240 ml.) cartridge services 32 vehicles and comes with 32 service stickers.



Disposable Oil Cartridges

- 8 oz. disposable cartridges.



PART NO.	DESCRIPTION
UV-488046P	PAG oil, 46 viscosity
UV-488125P	PAG oil, 125 viscosity
UV-488108E	ESTER oil, 100 viscosity

UV-481032

Dye Cleaner

- 32 oz. (960 ml) bottle of dye cleaner.



WARNING!

Wear safety goggles when working with pressurized systems. Read operating instructions thoroughly.

UV-413050

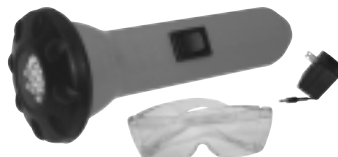
FLEX-Lite



- Powerful UV leak detection light with three true UV LEDs clustered to triple the power output to fluoresce the UV dye brightly.
- Affixed to a flexible tube that will flex its way into tight areas to spot leaks.
- UV LED has a 100,000 hour life usage.
- Each LED produces an unlimited, constant-on intense UV light without overheating.
- Powered by long-lasting N-size batteries (NOT watch batteries).
- UV glasses and batteries included.

UV-413060

Micro LED-Lite™



- Cordless, powerful UV leak detection light with 12 true UV LEDs which produce a super high intensity UV light to fluoresce the UV dye brightly.
- Long life, rechargeable battery provides 3 hours of continuous operation.
- Nickel metal hydride battery can be charged at any time - no need to wait for total discharge before the next charge up.
- UV LED has a 100,000 hour life usage.
- Each LED produces an unlimited, intense UV light without overheating.
- UV glasses and battery charger included.

UV-580500

Smart Gauge



- Utilizes a microprocessor which analyzes the ambient and vent temperatures of an A/C system and determines if the performance of the system is acceptable.
- Operates under all ambient conditions and temperatures.
- Easily attaches to any manifold gauge set.
- Reads in Fahrenheit or Celsius.
- Auto shut-off.
- Diagnostic chart and tech tips included.

UV-550000

AIRLIFT™ Radiator Air Purge and Refill



- Revolutionizes the way technicians refill cooling systems without airlocks.
- Comes with body assembly with gauge and ball valve control, Venturi connector and hose, fill hose with filter, various size rubber adapters, and rugged storage case.

UV-550537 Cone Adapter

UV-983700 Vacuum Gauge

UV-550500

AIRLIFT™ II

Radiator

Air Purge and Refill



- Refills cooling systems without air locks; Refills system with coolant in seconds!
- No more system purging or bleeding.
- Checks for system leaks under vacuum; Shop-air operation draws a fast and powerful vacuum.
- Compact size and light weight.....easy to work around tight areas.
- Push-button control valve works faster and eliminates the need to change hoses.
- Works on all systems (including light & heavy duty trucks) with "Fit-All" heavy-duty cone adapter.

UV-590000

Airlift™ Combo-Kit



- Refills cooling systems quickly and easily.
- Pressure tester for testing system leaks and radiator caps up to 30psi.
- Eliminates airlocks.
- Fits other manufacturer's adapters (Stant™, AST, etc.).
- Includes Airlift™ body assembly, fill hose assembly with filter, Venturi connector and hose, pressure pump with gauge, radiator cap coupler, Universal Radneck/cap adapter, and rugged storage case.

LS-75500

Combustion Leak Detector Kit



- Checks for combustion leaks caused by bad head gaskets, cracked blocks, and cracked or warped heads.
- Indicating fluid changes from blue to yellow when exposed to combustion gases in the radiator.
- Hose connects to any vacuum line. Place tapered end of tool into radiator opening after draining off some coolant.
- Vehicle's vacuum draws vapors through the indicating fluid for testing while the engine is running.

LS-75630 Leak Indication Fluid, 16 fluid oz.

LS-75730 Leak Indication Fluid for Diesel, 16 fluid oz.

WG-TP1121

LeakFinder™ Kit



- Locate A/C leaks in condensers, compressors, hoses, fittings, evaporator sections, seals, valves, accumulators, and more.
- Find fluid leaks in motor oil (gasoline and diesel), fuel (gasoline and diesel), coolant, automatic transmission fluid, power steering fluid, hydraulic fluid (not for brake systems), and auto body leaks.
- Kit includes the following:
 - Powerful 12 Volt, 50 watt UV/blue light lamp, 14 foot cord with alligator clips.
 - Calibrated A/C dye injector with pressure check valve and hose for R-12 and R-134a systems.
 - 1 oz. bottles of Fluoro-Lite® universal dye for all A/C systems, Dye-Lite® All-In-One™ full-spectrum dye for all oil-based fluid systems, and Dye-Lite® dye for coolant and auto body leaks. These are super-bright, OEM-approved fluorescent dyes - proven safe and effective in over 85 million vehicles worldwide!
 - Convenient 8 oz. spray bottle of GLO-AWAY™ dye cleaner.
 - Fluorescence-enhancing glasses to make leaks glow even brighter.
 - Underhood labels to help track maintenance service.
 - Carrying case made of rugged engineering polymer:



WARNING!

Wear safety goggles when working with pressurized systems. Read operating instructions thoroughly.

WG-TP8650CS

Blue Max Plus™ Pen Light



- Unique telescopic extender and adjustable service mirror for pinpointing all A/C and fluid leaks.
- Ideal for close-up inspection in tight areas.
- Allows for over two feet of reach.
- Solid state blue LED bulb with an average rated life of 100,000 hours.
- Convenient clip-and-carry design.
- Measures 6-3/4" long, weighs 3 ounces.
- Powered by coin batteries (included).
- Waterproof, lightweight, anodized aluminum body and casing is corrosion and impact resistant.
- Fluorescence-enhancing glasses make leaks even easier to see.

IMPORTANT: Fluorescent leak detection dyes required. For best results, use super-bright, OEM-approved, Tracerline® Fluoro-Lite® A/C dyes and Dye-Lite® fluid dyes.

- Patent pending.

ABW-70888

Deluxe Cooling System Pressure Tester

- Universal tester that eliminates the need for almost all system adaptors.
- Complete with four unique double ended cap adaptors allowing eight different caps to be tested.
- Inflatable bladder sealing system enables the analyzer to attach to almost all passenger and light commercial vehicles.
- Fits filler neck diameter of up to 45mm (bayonet and threaded) on radiators and header tanks.
- Locate leaks from head gaskets, radiator and heater cores, Welch plugs and housing, and water pumps and hoses.
- Also suitable for motorcycle and marine applications.
- Fluid drain tube allows coolant to be returned to the coolant reservoir or safely collected in a container for recycling.
- Bladder is cycle tested to over 1500 inflations.
- Tester constructed from high strength fibre reinforced synthetic polymer.
- Max. pump pressure: 30 psi.



ABW-70870

Radiator Cap Adaptor Kit

- Unique double ended design allow eight caps to be tested with only four adaptors.
- Use in conjunction with **ABW-70800** Cooling System Pressure Tester to test thread-type header tank caps or bayonet type radiator caps.
- Lightweight non-corrosive fibre reinforced nylon construction.
- Allows cap relief pressure and sealing condition to be tested.
- Supplied with detailed application and instruction sheet.
- Consists of four double sided Cap Adaptors, instruction manual and blow molded storage case.



JS-97331

Deluxe Cooling System Test Kit

- Perform cooling system pressure tests on all systems ranging from 4 to 30 psi.
- Pressure pump constructed of machined aluminum, brass and stainless steel with machined aluminum piston and chemically resistant "O"-ring seals.
- Large 2" dial gauge with rubber shock boot, extra long 24" pressure hose assembly with quick coupler connector and pressure relief valve for safety.
- Includes 4 conventional neck adapters and 4 internally threaded and 4 externally threaded, color-coded adapters and a radiator thermometer.
- Blow molded case with additional storage.



MSM-100K

Cooling System Tester Kit

- Test higher pressure cooling system and caps up to 30 pounds.
- Includes head release bar to release pressure build-up before removing head from neck.
- Comes in a durable plastic carrying case with easy to read instructions.



Includes the following:

PART NUMBER	DESCRIPTION
MSM-100P	Cooling System Pump
MSM-10006	Spacer Washer
MSM-10036	Domestic Radiator Adaptor
MSM-10128	32mm ID x 16mm Deep Radiator Adaptor
MSM-10138	32mm ID x 11mm Deep Radiator Adaptor

SN-12270

Cooling System and Pressure Cap Tester

- Test higher pressure cooling systems and pressure caps up to 30 pounds.
- Head includes a pressure release bar that when turned clockwise, releases pressure buildup before removing the head from the neck.
- Large, easy to read, color coded gauge includes three new pressure testing ranges - 17-19 lbs., 20 lbs., and 28-30 lbs.
- Comes in a durable plastic carrying case with an easy to read instruction manual which includes testing instructions as well as usage instructions and applications for adaptors; also cap testing adaptor to check 3/4" deep caps and rubber spacer to drop in 1" deep filler necks.
- All existing Stant adaptors can also be used with this tester.

SN-12702 Repl. 30 lb. Gauge



SN-12015

Threaded Adaptor

- Required to fit some White and GMC trucks with threaded filler necks.
- 2-1/2" threaded diameter.



SN-12021

Toyota Cap Adaptor

- Required to test small diameter (45mm O.D.) radiator caps on many late model Toyota, Nissan, Subaru and Mitsubishi cars and Honda motorcycles with water-cooled systems.



SN-12450

Truck Adaptor Kit

- Includes two solid die-cast, chrome plated cap and radiator adaptors, and one 7/8" plug.
- Fits trucks with the larger diameter filler neck (2-11/16" O.D., "B" size).



SN-12453

Adaptor Kit

- Test late model GM X-cars with 2.5L engine; J-cars with the 1.8L and 2.0L engine.
- Includes rubber gasket and "B" size filler neck adaptor from the **SN-12450** Truck Adaptor Kit.



KD-3584

Quick Fill Radiator Check & Fill System

- Air connection: 1/4" NPT • Brings cooling system to vacuum in seconds! • Provides system leak detection. • Refills cooling system and fills air voids. • Eliminates call backs. • Universal tip for all vehicles.



AR-FZ-1000

Cooling System Adapter Kit



Contains the following six adapters:

PART NO.	DESCRIPTION
AR-BMW-345	Adapter/BMW, Range Rover
AR-FZ-25	Adapter/Volvo, SAAB, Jeep, Renault, Sterling
AR-FZ-31	Adapter/VW and Audi
AR-FZ-32	Adapter/GM, Ford, Saturn
AR-FZ-128	Adapter/Import
AR-FZ-138	Adapter/Import

AR-BMW-345

BMW Cooling System Adapter

- For pressurizing cooling system. • Use in conjunction with cooling system pressure tester. • Applicable for 1988-2001 BMW.



AR-FZ-31

Cooling System Adapter

- For pressurizing cooling system. • Used in conjunction with cooling system pressure tester. • For 1990 - 1998 VW models with female threads on expansion tank, except 1998 Passat and New Beetle.



AR-FZ-128

Adaptor/Import



- For '90-'93 Acura Integra, '85-'88 Chevy Nova/Spectrum/Sprint, '84-'92 Dodge Colt, '91-'98 Eagle Laser/Talon, '91-'96 Chrysler Stealth, '89-'92 Ford Cougar/Thunderbird, '93-'97 Ford V6 Cougar/Thunderbird, '91-'99 Ford Escort/Tracer, '95-'99 Ford Explorer, '88-'93 Ford Festiva, '92-'94 Tempo/Topaz, '93-'99 Windstar/Villager, '89-'94 Geo Metro, '89-'92 Geo Prizm, '89-'93 Geo Tracker, '90-'93 Honda Accord, '88-'91 Honda Civic, '91 & newer Honda motorcycles, '87-'99 Hyundai, '92-'99 Infiniti, '92-'97 Isuzu, '94-'99 Lexus ES 300, LS 400 & LX 450/470, '85-'99 Mazda (except '95 Protege with 1.5L), 2000 - 2001 Mazda Protege - auto trans, Mitsubishi : '91-'98 3000GT, '92-'95 Diamante, '85-'93 Galant, '85-'92 Mirage, '89-'98 Montero, '89-'93 Starion, '87-'99 Nissan, '84-2000 Subaru with small filler neck, '83-'95 Suzuki with 16mm deep filler neck; Toyota: '86-'95 4-Runner, '95-'99 Avalon, '83-'89 Camry, '90-'91 Camry except V6 A/T, '94-2002 Camry V6, '82-'89 Celica, '83-'92 Corolla, '85-'92 Cressida, '87-'99 Land Cruiser, '85-'95 MR2/Spyder, '83-'92 Pickup, '89-'97 Previa, '98-2002 Sienna, '99-2002 Solara, '83-'84 Starlet, '86-'92 non-turbo Supra, '95-'98 T100, '95-'99 Tacoma, '83-'90 Tercel.

ADAPTERS

- For pressurizing cooling system. • Use in conjunction with cooling system pressure testers.



AR-FZ-22

Adapter/VW and Audi

- Applicable: Water-cooled Porsche models, '75-'93 VW & Audi models with male threads on filler neck of radiator or expansion tank.

AR-FZ-25

Adapter

- Applicable: '87 - '90 Jeep with male threads on filler neck, '85 - '87 Renault, '78-'93 Saab 900, '94 Saab 900 convertible, '86-'98 Saab 9000, '87-'91 Sterling, Volvo cars and trucks with threaded filler neck on expansion tank (except trucks with 63 x 3mm threads).

AR-FZ-32

Adapter

- Applicable: '94-'96 Buick Roadmaster, '92-'98 Buick Skylark, '97 Cadillac Catera, '94-'96 Cadillac Fleetwood, '98 Cadillac Seville, '92-'96 Chevy Beretta, '94-'96 Chevy Caprice, '95-'98 Chevy Cavalier, '92-'96 Chevy Corsica, '94-'96 Chevy Impala SS, '97-'98 Chevy Malibu, '93-'97 V8 Cougar/Thunderbird, '93-'99 Ford Crown Victoria/Mercury Grand Marquis, 2002 Ford Explorer, '95-'99 Ford E Series vans, '95-'99 F Series trucks, '93-'98 Lincoln Mark VIII, '98 Lincoln Navigator, '96-'99 Ford Taurus/Sable, '93-'99 Lincoln Town Car, '94-'98 International 466 engine, '98-'99 Mercedes M-Class, '92-'98 Olds Achieva, '95-'99 Olds Aurora, '97-'98 Olds Cutlass, '99 Intrigue, '92-'98 Pontiac Grand Am, '95-'98 Pontiac Sunfire, all models '90-'99 Saturn, with threaded filler neck on expansion tank.

AR-FZ-34

Adapter

- Applicable: '99 - 2001 Daewoo, '95-'97 Ford Contour/Mystique, 2000 - 2001 Ford Focus, '90-'94 Jaguar, '88-'93 Pontiac Le Mans, '88-'94 Range Rover, '94-'98 Saab 900, 2000 Saturn LS, with threaded filler neck on expansion tank.

AR-FZ-35

Adapter

- For pressurizing cooling system. • Use in conjunction with cooling system pressure tester. • For '99 Cadillac Escalade, '99 Chevy Camaro, '99 Cavalier, '99 Corvette, '99 Chevy Malibu, '99 Chevy Metro, '99 Chevy Geo Prizm, '99 Silverado 1500 & 2500, '99 Chevy Tahoe/Yukon, '99 Chevy Tracker, '99-2002 Sierra 1500 & 2500, '99 Olds Alero, '00 Olds Intrigue, '99 Pontiac Grand Am, '99 Pontiac Sunfire.



AR-FZ-138

Adapter/Import



- Applicable: '94-'99 Acura Integra, '91-'96 Acura Legend, '98 Chevy Metro/Prizm, '98 Chevy Tracker, '93 Dodge Colt, '93-'95 Eagle Summit, '95-'97 Geo Metro/Prizm, '94-'97 Geo Tracker, '94-2000 Honda Accord, '91-'99 Honda Civic, '99-2001 Honda Odyssey, '98-'99 Isuzu, '90-'91 Lexus ES 250, '92-'93 Lexus ES 300, '93-'99 Lexus GS 300, '98-'99 Lexus GS 400, '95 Mazda Protege 1.5L engine, 2000-2001 Mazda Protege manual trans., Mitsubishi: '96-'98 Diamante, '94-'99 Galant, '93-'99 Mirage, '97-'99 Montero Sport, '89-2000 Suzuki models with 9.5mm deep filler neck, Toyota: '96-2001 4-Runner, '90-'91 V-6 A/T Camry, '92-'93 Camry, '94-'99 V-6 Camry, '94-2002 Camry 4-cylinder, '90-'98 Celica, '93-'99 Corolla, 2000 Echo, 2001 Highlander, '92-'99 Paseo, '96-'99 RAV4, '90-'92 turbo Supra, '94-'97 Supra, '91-'99 Tercel.

NE-4520

Universal Cooling System Tester

- Equipped with a unique universal radiator adapter that offers 80% application coverage on cars and light trucks.
- Universal adapter allows for simultaneous testing of temperature and pressure and includes a temperature probe to verify operation of sensors, thermostats, and temperature while system is under pressure.
- Kit can be used in conjunction with conventional, dedicated radiator adapters.
- Color-coded gauge for easy reading and diagnosis and comes equipped with a pressure relief valve.

NE-4521 Universal Cooling System Retrofit Kit



NE-4505

Universal Radiator Adapter

- Compatible with all brands of radiator pressure testers.
- Offers 95% application coverage on cars and light trucks.
- Compatible with radiator necks or reservoir tanks.
- Solid rubber (non-bladder).
- Requires minimal set-up time and is easily serviced when necessary.
- Replaces as many as 25 other costly radiator adapters.
- Durable construction for years of reliability; does not require inflation or conditioning.



SL-93440

Heater Hose Disconnect Tool

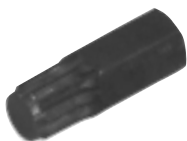
- Reach inaccessible area next to firewall on Aerostar Vans and rear heater cores and hoses with 3/4" or 5/8" quick disconnect couplings.
- Use on 1987 to current Chrysler Town and Country, Dodge Caravan and Plymouth Voyager or 1986 to current Ford Aerostar vans and 1990 and later Econoline vans.



LS-62200

GM Heater Hose Coupler Remover

- Removes broken heater hose couplers.
- To use, drive the tool into the broken coupler. The splines cut their way into the coupler, allowing you to turn it out with a 5/8" socket or wrench.
- Patent pending.
- Shipping weight: 2 oz.



OW-C7885

10 Piece Fan Clutch Wrench Set

- Time savers when replacing water pumps or for any other front engine service in body or repair shops.
- Wrenches feature a square drive for attaching a breaker bar for extra torque.



Includes the following in a molded carrying case:

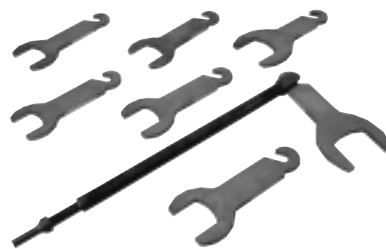
PART NO.	DESCRIPTION
OW-7204E1	Holding Tool, 2-1/4" - 57mm
OW-7204E2	Wrench, 1-7/16" - 36mm
OW-7205E1	Holding Tool, 3-1/4" - 82mm
OW-7205E2	Wrench, 1-7/8" - 47mm
OW-7818	Holding Tool, 2-1/8" - 54mm
OW-7820	Wrench, 2-13/16" - 72mm
OW-7821	Holding Tool, 1-7/16" - 36mm
OW-7823	Wrench, 1-9/16" - 39mm
OW-7855	Holding Tool, 2-3/8" - 60mm
OW-7887	Holding Tool, 3" - 76mm

LS-43300

Pneumatic Fan Clutch Wrench Set

- Quickly removes and installs the fan clutch when repairing the water pump or fan clutch.
- To use, drive the fan clutch nut in the opposite direction to replace. Use with an air hammer.
- Set includes a handle driver and 7 driving wrenches that fit Ford, GM, and Chrysler.

Includes the following:



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
LS-43370	Handle Driver	LS-43420	2" Driving Wr.
LS-43390	36mm Driving Wr.	LS-43450	42mm Driving Wr.
LS-43400	1-9/16" Driving Wr.	LS-43540	1-1/2" Driving Wr.
LS-43410	1-7/8" Driving Wr.	LS-43550	41mm Driving Wr.

LS-43430

7/8" Adapter Wrench

- Fits Ford Ranger 3-Liter engines from 1993 and up.
- Shipping Weight: 11 oz.
- Use with **LS-43300** Pneumatic Fan Clutch Wrench Set.



LS-43380

32MM Adapter Wrench

- Fits BMW, Audi and VW Passat.
- Shipping Weight: 11 oz.
- Use with **LS-43300** Pneumatic Fan Clutch Wrench Set.



LS-43440

40MM Adapter Wrench

- Fits Ford Ranger in-line 6 cylinder, 4.9 liter 300 cubic engines, 1993 to 1996.
- Shipping Weight: 8 oz.
- Use with **LS-43300** Pneumatic Fan Clutch Wrench Set.



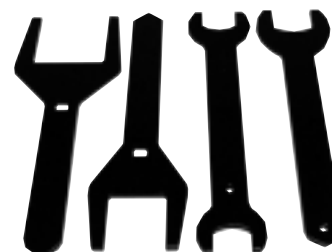
LS-41800

Ford Fan Clutch Wrench Set

- Remove/install Ford fan clutches when repairing or replacing the water pump, timing chain or the fan clutch.
- Set includes two holding wrenches and two open-end wrenches.
- The double-ended wrench and small holding wrench work on 2.8, 2.9, 3.0, 4.0 and 4.9 liter engines.
- The larger open-end wrench and larger holding wrench fit 6.9 and 7.3 liter diesel engines.

Set includes the following:

PART NO.	DESCRIPTION
LS-41810	36MM / 1-9/16" Wrench
LS-41820	58MM Wrench
LS-41860	1-7/8" Wrench
LS-41870	3-1/4" Wrench



SL-61200

Fan Clutch Wrench Set



• Two piece kit gives the professional technician the ability to service all fan clutches that have bolt on pulleys on the water pump. • Consists of the **SL-95210** Dual End Fan Clutch Wrench and the **SL-61600** Universal Fan Clutch Pulley Holder.

- **Chrysler applications:** Dodge Ram and Dakota pickups, Ram vans, Ram wagons with the following engines: 3.9 Liter V-6, 5.2 Liter V-8, 5.9 Liter V-8 and 8.0 Liter V-10, 1992-1997. Jeep Grand Cherokee 5.2 Liter V-8 1993-1997. Dodge Diesel 5.9 Liter 6 Cyl. 1988 and later.
- **Ford/Lincoln applications:** 4.9L E series 1984-1991, 4.9L F series 1984-1992, 2.8L Bronco II, Ranger 1984-1985, 2.9L Ranger 1986-1992, 3.0L Aerostar 1986-1988, 4.0L OHV Aerostar and Ranger 1990 and later, 4.0L OHV Explorer 1991 and later, 4.0L OHV Mazda Navajo 1991-1994, 4.0L OHV Mazda B4000 1995 and later, 4.0L V-6 SOHC Explorer 1997 & later, Mountaineer 1998 & later, 6.9L V8 diesel 1983-1987, 7.3L V8 diesel 1988-1993. Plus later models, **gas applications**, 1996 and later Explorer 5.0L V-8, 1996 and later Crown Victoria/Grand Marquis, Lincoln Town Car 4.6L V-8, 1997 and later F150 pickup trucks, vans & Expedition with 4.2L V-6, 4.6L V-8, 5.4L V-8, 6.8L V-10; 1997 and later Mercury Mountaineer 5.0L V-8, 1998 and later Lincoln Navigator 5.4L V-8 and add the following **Diesel applications: 1994** and later 7.3L V-8.
- **G.M./Isuzu applications:** 4.3L Astro & Safari Vans, Blazer, Jimmy & Bravada Sport Utility Vehicles; 2.2L 4Cyl & 4.3L V-6 S-10, Sonoma & Isuzu Hombre small pickups; 4.3L V-6, 5.0L V-8 and 5.7L V-8, C1500, C2500, C3500, K1500, C1500 Sierra, C2500 Sierra, C3500 Sierra & K1500 Sierra pickups, G1500 or G2500 Chevy Express, G1500 or G2500 Savanna Vans; 5.7L V-8 Suburban, Tahoe, Yukon, Escalade, Denali & Envoy.

SL-61500

G.M. Diesel Water Pump, Fan Clutch Pulley Holder



• For use with pressed on water pump pulleys G.M. 6.5 Liter diesel engine starting in 2000, G.M./Isuzu-Duramax 6.6 Liter diesel engine starting in 2001.

SL-61600

Universal Fan Clutch Pulley Holder



• Specially designed contour for easy use on vehicles using bolt-on pulleys; No adjusting needed - just hook on the pulley bolt and hold.

SL-61800

48mm H.D. Fan Clutch Wrench



• 48mm open end wrench can be used with Ford and G.M. applications which need additional leverage to break loose the fan clutch. • Applications include diesel and gas engines with a 48mm fan clutch nut.

SL-62100

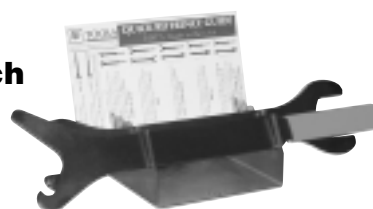
BMW Fan Clutch Wrench



• Services BMWs when used with the **SL-61600** Universal Fan Clutch Pulley Holder.

SL-62020

2 Piece Fan Clutch Wrench Set and Display



• Fits all gas and diesel "bolt on" style water pump pulleys for Chrysler, Ford, General Motors, Land Rover, and Mazdas (not including the 4.9 liter, 6 cylinder Ford engines). • Includes a display rack and quick reference guide.

Consists of the following:

PART NO.	DESCRIPTION
SL-61600	Universal Fan Clutch Pulley Holder
SL-95210	Dual End Fan Clutch Wrench

SL-62050

5 Piece Fan Clutch Wrench Set and Display



• Works with all Chrysler, Ford, General Motors, Land Rover, and Mazdas. • Can be used to remove the fan clutch on gas and diesel "bolt on" water pump pulleys and the newer "pressed on" style water pump pulleys. • Includes a display rack and quick reference guide.

Consists of the following:

PART NO.	DESCRIPTION
SL-61500	GM Diesel Water Pump, F.C.I. Pulley Holder
SL-61600	Universal Fan Clutch Pulley Holder
SL-95210	Dual End Fan Clutch Wrench
SL-95260	40mm Ford "Thin" Fan Clutch Wrench
SL-99800	GM/Chrysler Five Pin Wrench

SL-88550

Heavy Duty 36mm Fan Clutch Wrench



• Used when extra leverage is needed in 36mm applications.

SL-95260

40mm Ford "Thin" Fan Clutch Wrench



SL-99800

GM/Chrysler Five Pin Wrench



SL-95270

Chrysler Gas/Diesel Fan Clutch Crowfoot Combination



• 68mm/76mm crowfoot combination. • Designed to remove Chrysler Dodge and Jeep fan clutch assemblies. • Can be used with **SL-95210**. • Gas applications include Dodge Ram and Dakota Pick Ups, Ram Vans, Ram Wagons with the following engines: 3.9L V6, 5.2L V8, 5.9L V8 and 8.0L V10, 1992-1997; Jeep Grand Cherokee 5.2L V8 1993-1997. • Diesel applications include Dodge 5.9L 6 cyl. 1988 and later.

SL-95210

Dual End Fan Clutch Wrench

- 36mm/48mm Open End Combination wrench.



SL-96370

GM Fan Clutch Wrench

- Designed to loosen and tighten the fan clutch on 1996 and later G.M. trucks and vans. • Use with **SL-95210**. • Works with both 10mm and 13mm pulley bolts. • Holds the water pump pulley stationary while using the open end wrench to loosen the fan clutch. • Applications: 4.3L Astro & Safari Vans, Blazer, Bravada & Jimmy Sport Utility Vehicles; 2.2L 4CYL & 4.3L V6 S-10 Sonoma and Isuzu Hombre small pickups; 4.3L V6, 5.0L V8 and 5.7L V8, C1500, C2500, C3500, K1500, C1500 Sierra, C2500 Sierra, C3500 Sierra & K1500 Sierra pickups, G1500 or G2500 Chevy Express, G1500 or G2500 Savana Vans; 5.7L V8, Suburban, Tahoe and Yukon.



Measuring Containers

- Comfortable easy grip handle. • Marked fill lines. • Rolled edge top helps prevent spillage.



PART NO.	CAPACITY	PART NO.	CAPACITY
PL-75-451	1 Quart	PL-75-454	4 Quart
PL-75-452	2 Quart	PL-75-456	6 Quart

4.5 Gallon Drain Pans

- 4.5 gallon capacity drain pan for recovery of oil, antifreeze and other automotive fluids potentially harmful to the environment. • Resistant to chemicals and solvents. • Won't dent or rust; easy to clean. • Molded handles for ease of pouring; anti-splash lip; 45° spout to pour in recycling container. • Made of recyclable high density polyethylene with UV stabilizer. • Dimensions: 7"H x 18"W x 24"L.



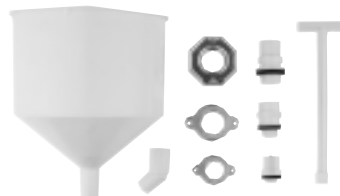
WARNING! These products are not intended for storage of flammable or other dangerous liquids.

PART NO.	COLOR	APPLICATION
CM-P-45	Black	Oil Drain Pan
CM-P-47	Green	Antifreeze Recovery Drain Pan

LS-22150

SPILL-FREE™ Funnel

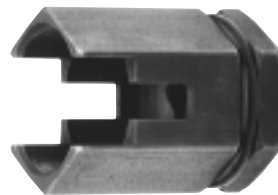
- Eliminates spills and mess; eliminates trapped air pockets which usually cause erratic cooling system and heater performance. • Controls proper amount of coolant entering system, enables unattended filling, and eliminates squeaky belts caused by coolant overflow. • Angled neck for angled radiator caps. • Fits most domestic and import cars and light duty trucks.



PART NO.	DESCRIPTION
LS-22330	Large Cap "A"
LS-22340	Medium Cap "B"
LS-22370	Large Adapter with Gasket
LS-22390	Medium Adapter with Gasket
LS-22410	Small Cap "C"
LS-22280	45° Elbow
LS-22300	Fluid Stopper
LS-22450	Small Adapter with Gasket

TH-423

Universal Radiator Petcock Socket



- Open and close petcocks used in radiators, engine blocks, liquid storage tanks, etc. • Use with 1/4" drive ratchet or 7/8" wrench. • O-ring on socket helps hold wrench in place, allows one hand operation for use in confined areas. • Prevents damage to ears on petcock. • Two slot design allows for use on all types of petcocks.

EN-311519

CoolTrak® Coolant pH Test Strips

- Used to determine an engine's protection against freeze-up, boil-over and acid buildup. • Tests both ethylene and propylene glycol-based coolants; not for use with red or orange dyed coolants. • Packaged in blister packed bottles of fifty (50) test strips.



EC-SP102

Antifreeze Hydrometer

- Virtually unbreakable; easy to read. • Tests Dex-Cool®. • Range: -60°F to 32°F. • Fahrenheit and Celsius scales. • Direct, accurate readings. • Temperature compensating. • Tests both cold and hot solutions. • Longer length hose accommodates newer cars.



TH-106

COLD-CHEK®

- Disc-type antifreeze tester. • Large professional size (16-1/4") tester is accurate at all temperatures. • Tests coolant, hot or cold. • Discs are magnified by convex design of the clear plastic barrel. • Protection scale is in both Celsius and Fahrenheit. • Features a "6th disc" to show overprotection and loss of coolant efficiency. • Has one-piece bulb and neoprene dip tube.



PU-7046

Radiator Hose Tool

- Designed for radiator and heater hose removal. • Insert tool point between hose and radiator outlet. • By moving tool around the outlet, hose is loosened for easy removal. • Bright luster plate blade with fluted plastic handle.



LS-20900

Radiator Cap Pliers

- Used for the fast safe removal of all standard radiator caps. • Engage pliers over the cap, press down, rotate and release. • Vinyl grip on lower handle only.



WARNING!

Wear safety goggles when working with pressurized systems. Read operating instructions thoroughly.

UNDERCARRIAGE & WHEEL



The Choice of Professionals®
- Since 1919 -

HR-238

Extra Large Truck Oil Filter Wrench

- Fits most John Deere tractors. • Also works on some Case, Case/IHC, Allis Chalmers tractors and other farm implement products. • Heavy duty swivel grip handle. • Tough steel band with special teeth for extra gripping power. • Tubular steel handle for added strength. • Range: 4-3/4" to 5-3/16".



LS-53250

Large Oil Filter Wrench

- Fits most models of Mack Trucks, Ford Caterpillar, Case and Allis Chalmers tractors. • Swivel grip handle, gripper "teeth", and 1" wide stainless steel band. • Vinyl covered handle. • Handle swivels to clear obstructions. • Range: 4-1/8" to 4-1/2" (104.7-112.7mm).



Cornwell "Swivel Grip" Oil Filter Wrenches

- Swivel handle, gripper "teeth", & 1" wide stainless steel band. • Vinyl covered handle. • Handle swivels to clear obstructions.



PART NO.	TYPE/RANGE	APPLICATIONS
CLS-53500	Standard 3-1/2" to 3-7/8" (88.9-98.4mm)	Fits standard 3-5/8" filters
CLS-53700	Small 2-7/8" to 3-1/4" (73-82.5mm)	Fits late model GM and other models using small 3" filters

Truck Oil Filter Wrenches

- Heavy duty square drive band-type oil filter wrenches for truck and tractor applications. • Feature heavy duty yoke and 1-1/2" steel band. • Designed for high torque requirements. • Use with 1/2" sq. drive extension.



PART NO.	DESCRIPTION
HR-280	4-1/8" to 4-21/32" (104mm to 118mm)
HR-281	4-21/32" to 5-5/32" (118mm to 131mm)
HR-282	5-5/32" to 5-21/32" (131mm to 144mm)

HR-25101

Four-in-One Swivel Filter Wrench Kit

- Handles filters from 2-3/8" to 4-3/8" (61mm-111mm) with one kit. • One swivel handle assembly with four interchangeable bands.



KD-3529

Heavy Duty Oil Filter Strap Wrench

- Strap is made of high strength oil resistant nylon and handle is made of forged steel. • Chrome plated 3/8" and 1/2" drive engagement. • Handles filters with diameters up to 9" (229mm), especially high torque requirements on truck and tractors.



OW-7062A

Heavy Duty Filter Wrench

- Removes most any spin-on filters up to 6". • Universal design permits use on most vehicles. • Heavy nylon strap holds firmly. • More leverage applied, the tighter it grips. • Accommodates a 3/8" drive ratchet.



ST-ADJ6293

Adjustable Oil Filter Wrench

- Fits all filters 62 to 93MM (2-1/2" to 3-5/8"). • Ideal for close clearance problems. • Dual drive - 3/8" ratchet or 3/4" wrench. • Sure-grip three-point contact with non-clogging legs. • Easy to clean gears. • Withstands 85 ft.-lbs. of torque for stubborn filter removal. • Industrial grade black oxide finish.



CLS-63600

Cornwell Import Car Oil Filter Wrench

- Fits 2-1/2" Toyota oil filter. • Removes all oil filters from 2-1/2" to 3-1/8" in diameter. • Extra large range enables the tool to fit most all import car filters plus the common 3" domestic car filters. • Steel jaws grip filter without slipping. • Work in tight spots from the front of the filter using 3/8" drive.



KD-2790

End Cap Oil Filter Wrench

- Removes hard-to-reach 3" (76mm) oil filters with 15 flute end. • Fits flute designs found on AC/Delco, Fram, Wix, STP, NAPA, Sears, Gard, Montgomery Ward, VW and Motorcraft filters. • Zinc-plated steel to resist rust. • Use with 3/8" sq. dr. tools or 1" wrench.



LS-53000

GM Oil Pan Plug Wrench

- Removes the 3-1/4" drain plug on GM four cylinder cars where the oil filter is in the pan. • Works where the original hex on the plug has been rounded off. • Simply install wrench into recess in plug and turn counterclockwise to loosen. • Reverse procedure to install. • Works with 1/2" drive.



LS-63250

Wide Range Oil Filter Wrench

- Fits filters from 3-1/8" to 3-7/8". • Steel jaws grip filter without slipping. • Works from the top of the filter - great in tight spots! • Use with 3/8" drive. • Shipping weight: 14 oz.



WARNING!

Wear safety goggles. Crush oil filters only, one at a time. Do not crush fuel filters. Read operating instructions thoroughly.

Oil Filter Pliers

- Heavy duty forged pliers remove stubborn filters. • Gets into tight spots to break tough seals. • Plastisol dipped handle. • Large pliers (**HR-287**) have extra long handles for high torque applications.



PART NO.	TYPE	SIZE
HR-284	Small	2-11/32" to 2-3/4" (60mm to 70mm)
HR-285	Medium	3-1/8" to 3-5/8" (79mm to 92mm)
HR-287	Large	4-5/8" to 5-3/4" (118mm to 146mm)

CLS-50750

Cornwell Slip Joint Oil Filter Pliers

- Two-position slip joint handle produces the range of three separate conventional filter wrenches. • Jaws are bent at a 20° angle to fit more applications. • Sure grip teeth prevent slipping. • Cushioned handles add comfort. • Overall range: 2-1/4" to 4".



Cornwell Tongue and Groove Filter Pliers

- Oil filter pliers with right angle teeth to grip in all directions. • Part number laser etched on tool. • Neon orange comfort grip handles.



PART NO.	SIZE	# of ADJUSTMENTS.	CAPACITY
CCL-212	12"	5	2-3/4" to 4-1/4"
CCL-215	15"	6	2-1/2" to 5-1/2"

JD-JDI-5DCK

5 Gallon Heavy-Duty Portable Oil Drain Pan

- 5-gallon galvanized steel container. • Large 14" heavy-duty polypropylene receiver funnel. • Tube adjusts from 40" to 67". • 3-3/4" capped drain for easy emptying. • High-gloss black enamel finish. • Includes caster base. • Weight: 20 lbs.



LS-11102

Eight Gallon Oil Lift Drain

- Large 15" funnel with strainer. • Wide working range 36-1/2" to 74". • Quick release lock ring for fast raising/lowering of upper tube. • Heavy duty adjustment clamp. • Large handle and big pour spout with threaded cap for pouring ease. • Lower center of gravity for increased stability. • Four 2-1/2" ball bearing swivel wheels. • Special shaped translucent eight gallon jug with reinforced base; will not warp with hot oil.

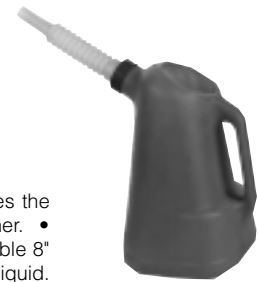
LS-11602 Replacement Caster



LS-19732

Six Quart Oil Dispenser

- Translucent polyethylene material enables the user to read the liquid level on the container. • Marked with both quarts and liters. • Flexible 8" white pouring spout enables easy transfer of liquid.



LS-17902

Super Transmission Drain Funnel



- Large 24" x 36" size. • Prevents oil from splashing over. • Fluted for draining oil filters. • Made to accommodate extra large transmissions like the Ford E40D and others. • Fits on the following size funnels: 13", 14", 15", 16", 17", and 18".

LS-17892

Transmission Drain Funnel



- Heavy duty plastic lift drain funnel. • Extends catch area of any lift drain. • Funnel catches any loose parts. • Flexible, returns to original shape if bent. • Dimensions: 22" by 23".

4.5 Gallon Drain Pans



- 4.5 gallon capacity drain pan for recovery of oil, antifreeze and other automotive fluids potentially harmful to the environment. • Resistant to chemicals and solvents. • Won't dent or rust; easy to clean. • Molded handles for ease of pouring; anti-splash lip; 45° spout to pour in recycling container. • Made of recyclable high density polyethylene with UV stabilizer. • Dimensions: 7"H x 18"W x 24"L.

WARNING!

These products are not intended for storage of flammable or other dangerous liquids.

PART NO.	COLOR	APPLICATION
CM-P-45	Black	Oil Drain Pan
CM-P-47	Green	Antifreeze Recovery Drain Pan

LS-17922

Multi-Drain Tub



- 30 quart, all purpose, heavy duty, plastic drain tub for draining radiator, crankcase, transmission or differential. • Apron for washing and sorting parts. • Dimensions: 33"L x 22"W x 8"D.

LS-19802

Two Piece Super Funnel



- Two piece, three way funnel. • Use either section separately. • The diameter of small funnel is narrow enough to fit even the smallest applications including transmission filler holes. • When screwed together, the unit functions like a long super funnel.

PL-75-068

Super Funnel



- All purpose utility funnel. • Extra long neck to reach out of the way spots. • 2 quart capacity. • 18" overall length, 5" diameter, 1/2" O.D. tip.

PL-75-074

Funnel with Flexible Spout



- Two-piece, multi-purpose funnel with 12" detachable flexible spout. • Triple threaded spout for 1 quart oil bottles, antifreeze and windshield washer containers, and 4-5 quart bottles. • Easy grip handle. • 15" overall length, 6" diameter with 3/4" O.D. tip.

TH-478X

EZ-FLO Pour Spouts

- Handle engine oil, hydraulic fluid, ATF, brake fluid, and many other solvents without the mess!
- Durable polyethylene design allows the EZ-FLO spout to be used over and over again.
- Trim the tip to desired flow, and snap on any standard quart container.
- Contains twenty-four (24) EZ-FLO's packaged in a counter top display (12 red and 12 yellow).



CR-50-1

Funnel Buddy



- For automotive fluids, gas, oil, transmission fluid, power steering, etc. • Also great for fork lifts, hydraulic equipment, garden and kitchen chemicals, pesticides, paint & thinners, lawn mower & chain saw fluids, etc.
- Keeps dust out of funnel and drips off the floor. • Mounts to most surfaces. • Keeps funnel where you can find it. • Transfer fluids from bottle to bottle. • Funnel and transparent bottle included. • Most used oil bottles, 2 liter drink bottles, etc. attach to bottom (used bottle not included). • Removable bottle collects fluids from other partially filled bottles.
- Patent pending.



WARNING!

Wear safety goggles. Read operating instructions thoroughly.

PL-50-508

Pistol Oiler Set



- Consists of three 6 oz. rigid spout oilers and handy triple wall holder. • 6" rigid non-detachable spouts. • No leak, full drawn steel bodies. • Rugged epoxy finish resists rust and other corrosives.

Deluxe Pistol Oilers

- Silkscreened painted steel bodies with deluxe plated trigger, head cap and spout.
- Silkscreened body and plated parts. • Nickel-plated head cap and 6" rigid spout has detachable tip with 10-32 threads. • Rigid non-detachable spouts have ledge-cone machined tips to lift oil filler dust caps.
- Complete with base or wall holders.



PART NO.	CAPACITY	HOLDER
PL-50-512	6 oz.	base
PL-50-525	1 pint	none

Epoxy Finish Pistol Oilers

- Drawn steel bodies with epoxy finish. • 6" spout.
- Rigid spouts have ledge-cone machined tips to lift oil filler dust caps. • Zinc-plated flexible spouts have a base thread of 1/4"-28. • Complete with base holders.



PART NO.	CAPACITY	SPOUT
PL-50-515	6 oz.	Rigid, non-detachable
PL-50-516	6 oz.	Flexible

GG-CSGG

Continuous Shot Air Grease Gun

- 360° Swivel head allows incredible access to grease fittings. • Designed for manual lubrication of grease points in automotive and truck applications. • Simple, durable construction for years of consistent, reliable service. • True continuous grease feed with one trigger pull; Single action pump delivers grease each time the trigger is depressed and the plunger moves forward. • Quiet, dependable operation. • External end cap with lever release. • Bulk load fitting and air vent plug included.
- Exclusive heavy duty "T" pull handle. • Includes 18" high pressure grease hose and durable 6" bent metal spout. • 40:1 ratio; air operating range of 40-150 PSI. • Grease output pressure: 6,000 PSI • Hose working pressure: 7,500 PSI; Hose burst pressure: 22,500 PSI.



GG-LAGG

Heavy Duty Lever Action Grease Gun

- 16 oz. bulk fill, 14 oz. cartridge. • Develops up to 10,000 PSI. • 3 Way filling (cartridge, bulk, filler pump). • Chrome plated tapered end cap. • Special heavy duty "T" handle with finger grooves. • Heavy duty, heat-treated spring for consistent priming. • Variable stroke for greasing in confined areas. • 6" bent metal spout.



GG-MAGG

Mini Grease Gun

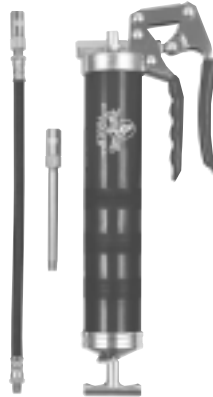
- Develops up to 3,500 PSI. • Uses standard convenient 3 oz. cartridge. • Chrome plated tapered end cap. • 2 Way filling (cartridge or bulk). • Special HD "T" handle with finger grooves. • 6" chrome metal spout with 4 jaw ball check coupler.



GG-PGGG

Pistol Grip Grease Gun w/Flex Hose

- 16 oz. bulk fill, 14 oz. cartridge. • 3 Way filling (cartridge, bulk, filler pump). • Air vent plug standard on the head. • Chrome plated tapered end cap. • Special heavy duty "T" handle with finger grooves. • Heavy duty 12" flexible nylon hose with 4 jaw ball check coupler. • Chrome plated pistol grip handle with blue grips. • 6" metal spout with coupler.



GG-SGG

Suction Grease Gun

- 16 oz. capacity. • Chrome plated tapered end cap. • Special heavy duty "T" handle with finger grooves. • 12" clear tube.



GG-SSAGG

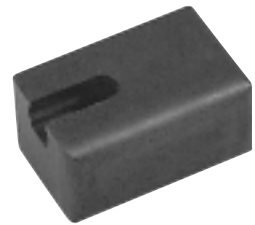
Single Shot Air Grease Gun

- Develops up to 6,000 PSI. • Ideal for lubrication & maintenance of automotive & industrial equipment. • Lightweight design for ease of operation. • Provides wide angle operation in narrow spaces. • Chrome-plated container tube & enamel-baked housing.



LS-21600

Right Angle Grease Gun Adapter



- Reach inaccessible grease zerks. • Attach to any standard grease gun to reach confined areas. • For Chrysler, Dodge, and Plymouth FWD ball joints and other tight places. • Shipping weight: 5 oz. • Patent pending.

PL-10-513

12" Air Grease Gun Hose



- For air operated grease guns. • Heavy duty, double steel braided, high quality rubber grease hose with 1/8" NPT male fittings on each end. • Recommended working pressure 4,500 PSI.

Hand Grease Gun Hoses



- For hand operated grease guns. • Heavy duty, high quality 1/8" NPT male fittings on each end. • Recommended working pressure 3,000 PSI. • Burst pressure is 12,000 PSI. • Meets U.S. Government Specification MIL-L-4387C.

PART NO.	LENGTH	PART NO.	LENGTH
PL-10-212	12"	PL-10-219	18"

VM-VB471XL

Torx® Bit for Ford Explorer



- Use on the Ford Explorer Oil Pan. • 1/4" Hex x T30 Torx® Bit. • Overall Length: 8".

PL-05-025

4" Needle Nose Adapter



- Perfect for use on RV's. • For converting jaw-type lube couplers to steel needle points. • Dispenses fine line of grease through the needle nose. • Fits overall standard couplers with both small and large sleeves. • For hand guns only.

PL-05-037

Grease Injector Needle



- Lubricates in very tight places like universal joints and sealed bearing. • Stainless steel 18 gauge x 1-1/2" long needle. • Equipped with standard grease fitting and protective plastic holder. • For hand guns only.

PL-05-022

Quick Disconnect Adapter



- For converting standard jaw-type lube couplers to steel needle points. • Complete with both small and large sleeves to fit all standard couplers. • For hand guns only. • 11/16" long, .046" tip diameter; .219 body diameter.

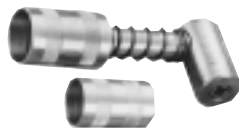


WARNING!

Wear safety goggles. Read operating instructions thoroughly.

PL-05-059

90° Grease Coupler



- For hard to reach grease fittings on cars, trucks, and equipment.
- Ideal for lubrication of late model front wheel drive vehicles.
- Comes with large and small sleeves.
- Recommended working pressure - 4,000 PSI.
- For hand operated grease guns only.

TH-418

Right Angle Grease Coupler



- Fits standard grease guns.
- Seal and slot in housing designed to provide 90° access into minimal clearance areas.
- Eliminates need for flexible hoses.
- Ideal for lower ball joints on Chrysler K-cars.

PL-05-031

Grease Gun Coupler



- Standard jaw-type coupler features spring loaded ball check valve.
- Fits all 1/8" NPT threads.
- For all hand operated lube equipment.
- Recommended working pressure - 3,000 PSI.

X-9010

Oil Sending Unit and Stoplight Switch Socket



- Dual purpose 3/8" square drive or 3/4" external hex socket.
- Two openings: 1" and 1-1/16".
- Designed to fit the oil pressure sending units and stoplight switches on late model cars.
- Length: 2-3/4".

X-9038

Oil Pressure Sending Unit Socket



- Designed for late model GM vehicles using 1-3/16" socket hex oil pressure sending units (for vehicles equipped with gauges).
- Overall length: 4-1/64".
- 1-5/8" O.D.
- 3/8" square drive; 7/8" hex drive.
- Chrome plated.

CLS-BP1

Cornwell Bearing Packer



- Quickly flushes out old grease, and repacks bearings with less mess.
- Includes easy-to-grip dust cover to keep stored grease like new.
- Works on bearings up to 3-1/2" O.D.
- To pack a bearing and remove old grease: Place the bearing with the small taper down over the stem on piston. Put cap onto center bearing. There is no need to screw the cap onto the piston to pack bearings. Place the bearing packer on a flat, solid surface and press down on the cap until the old grease is forced out and new grease shows on top of the bearing.

KD-31430

Bushing Remover and Installer Set



- Remove and insert bushings in cars, trucks, busses, tractors, construction and off-road equipment.
- Nine piece set includes: driver, nut, and adaptors in sizes ranging from 1-5/16" to 1-3/4".
- Size stamped on each adaptor.

PU-48

Bushing Driver Set



- Used to remove and replace bushings for both on-road and off-road vehicles.
- Sixteen pieces, range: 3/8" to 1-1/4".
- All adaptors and drivers are clearly marked and color coded.
- Packaged in red polyethylene box with location chart in box lid.
- Parts are finished with contrasting bright lustre plate and black oxide.

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
PU-48-1	Small Driver	PU-48-9	13/16" Adaptor
PU-48-2	7/16" Adaptor	PU-48-10	7/8" Adaptor
PU-48-3	1/2" Adaptor	PU-48-11	15/16" Adaptor
PU-48-4	Medium Driver	PU-48-12	1" Adaptor
PU-48-5	5/8" Adaptor, thin wall	PU-48-13	1-1/16" Adaptor
PU-48-6	5/8" Adaptor	PU-48-14	1-1/8" Adaptor
PU-48-7	11/16" Adaptor	PU-48-15	1-3/16" Adaptor
PU-48-8	Larger Driver	PU-48-16	1-1/4" Adaptor

LS-55600

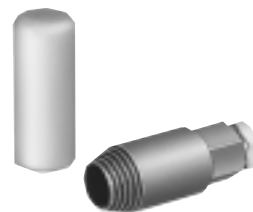
Clutch Pilot Bushing Remover



- Uses hydraulic pressure to remove brass and bronze bushings.
- Screw the self-tapping tip 2-3 threads into the brass or bronze bushing, then pump out the bushing with a grease gun.
- Made of case hardened steel.
- Fits brass or bronze bushing from 1/2" to 3/4" I.D.
- Not for use on steel bearings.

KD-2393

GM Transmission Seal Remover/Installer



- Removes and installs transmission shift selector shaft seals without draining fluid.
- Screw cone shaped threads into seal and tighten remover screw to pull worn seals.
- Place installer over new seal and selector shaft and tap with hammer to install.



WARNING!

Wear safety goggles. Read operating instructions thoroughly. Vinyl plier handle covers are not intended to act as insulators.

KD-2547

Transmission Stop-Off Tool

- Eliminates need to drain transmission fluid when making repairs or replacing drive shaft U-joints. • Plugs transmission drive shaft opening reducing transmission fluid waste on most domestic rear wheel drive cars.



VM-V230

Universal Joint Snap Ring Pliers

- Designed to remove and replace universal joint snap rings on Hotchkiss Drive Shafts. • Breaks loose even highly corroded rings. • Unique jaw design allows mechanic to pick up rings easily. • Made from heat treated alloy steel with red plastic grips.



LS-23400

Transmission/Transaxle Plugs

- Stops loss of transmission fluid. • Five stepped plugs fit both transmissions and transaxles on most import and domestic cars and pickups. • Stepped design prevents slipping out. • Adapter #23450 includes side gear centering for Ford Transaxles. • Plugs cover a range of 1" to 2.180" (25.4mm to 55.37mm).

Set includes the following plugs:

PART NO.	I.D. NO.	SIZE RANGE
LS-23410	1	1"-1.250" (25.4mm-31.75mm)
LS-23420	2	1.300"-1.550" (33.02mm-39.37mm)
LS-23430	3	1.600"-1.850" (40.64mm-46.99mm)
LS-23440	4	1.925"-2.180" (48.895mm-55.37mm)
LS-23450	5	For Ford Transaxles



JD-LBEK

GM/Ford Differential Pin Repair Kit

- For removing broken differential pinion shaft lock bolts in GM and Ford integral rear ends.



TH-319

Transmission Cooler Line Plugs

- Seals male or female transmission or fuel line fittings with 1/4", 5/16", and 3/8" tubes. • Eliminates loss of transmission fluid. • 16" chain keeps plugs together and serves as a tube support.



CWI-FTD7S

7 Piece Fuel and Transmission Line Disconnect Set

- Contains tools to work on a variety of Ford fuel and transmission lines. • Separate fittings on fuel lines, fuel filters and fuel tank return lines - sizes 1/4", 5/16" and 3/8". • Separate automatic transmission of cooler lines on Ford Taurus and Escorts with AXOD and ATX transmissions. • Comes in a plastic storage case.

Set consists of the following:



PART NUMBER	DESCRIPTION
CWI-102	Ford Fuel Line Disconnect Tool
CWI-111	Ford Transmission Disconnect Tool
CWI-130	5/16" Fuel Line Disconnect Tool
CWI-131	3/8" Fuel Line Disconnect Tool
CWI-132	1/4" Fuel Line Disconnect Tool
CWI-133	Ford Transmission Disconnect Tool
CWI-542	Ford Fuel Line Disconnect Tool

CWI-102

Metal Fuel, Transmission and A/C Line Disconnect Tool

- For use on Ford CFI fuel lines with hair pin connectors. • Universal for radiator to transmission oil cooler lines: '87 and newer Oldsmobile, Toronados, Buick Riviera Reatta, Cadillac Eldorado, Seville and Concours; '89 and newer GM 1/2 ton, 3/4 ton and 1 ton pick-ups.



CWI-111

Ford Oil Cooler Line Disconnect Tool

- For use on '1986 and newer Ford vehicles with AXOD, AOD, or ATX automatic transmissions.



CWI-133

Pro Style Oil Cooler Line Disconnect Tool

- Separates automatic transmission of cooler lines on Ford Taurus and Escort with AXOD and ATX transmissions.



CLS-11750

Cornwell Ford Clutch Coupling Tool

- Disconnects hydraulic clutch lines from the clutch slave cylinder on some Ford manual transmissions. • Tool prongs fit around clutch line above nylon sleeve. • For 1989 and newer Mercury Cougars and Thunderbirds; 1988 and newer small trucks including Explorer, Ranger and Bronco II.



OW-7937

GM Transmission Oil Cooler Line Disconnect Tool



- Designed to work in tight places.
- Simple to operate, even one-handed.
- After inserting into the quick-connect fitting, a quarter turn of the tool quickly and easily releases the fitting on transmission end of the transmission to radiator oil cooler line.
- Works on 2WD and 4WD pick-ups and vans with electronic shift overdrive automatic transmissions: '91-current 4L80E transmissions and '93-current 4L60E transmissions.

TH-440

Transmission Linkage Remover Tool



- Access hard to reach linkages on Chrysler/Jeep vehicles and confined areas on front wheel drive vehicles.
- Removes transmission linkage, using plastic bushings, from shift lever on: Ford FMX, C-3, C-4, C-5, C-6, AOD and A4LD-1974 and up; GM trucks 4x4 with 207 and 208 transfer case 1981 and up; and Jeep 4x4 with 228 and 229 transfer case 1981 and up.
- High strength steel is treated for wear and breakage resistance.
- Angled "pickle fork" design easily separates linkage.
- 12" long.
- **For Transmission Linkage removal only!**

OW-7028

Adjusting Wrench for SPICER®-Built Heavy Duty Clutches



- Use to perform internal adjustment of Spicer® angle-spring and multiple lever clutches in 50% of heavy-duty trucks.

TORX® Box Wrenches



- Black oxide finish.

PART NUMBER	OPENING	PART NUMBER	OPENING
VM-WT0810	E8 x E10	VM-WT1214	E12 x E14

OW-7244

Quick Disconnect Coupler Tool



- Remove quick connectors used on radiator, transmission, and power steering lines of late model Ford or GM vehicles.
- Tool slides down the line and into the connector, spreading the clip apart for removal without disturbing seals.



WARNING!

Wear safety goggles. Read operating instructions thoroughly. Vinyl plier handle covers are not intended to act as insulators.

HT-CT2500A

Master Clutch Alignment Tool



- Covers over 80% of foreign and domestic passenger car and light truck applications.
- Made in the U.S.A. of high impact oil resistant plastic.
- Comes complete with board, pegs and applications chart.

OW-7249

Ball Joint Service Tool Set



- Removes/replaces ball joints.
- C-frame press alone can also remove/replace universal joints.

Set consists of the following:

PART NO.	DESCRIPTION
OW-7248	C-Frame Press
OW-29503	Receiver Tube (3" O.D. x 2-3/4" I.D.)
OW-29504	Receiver Tube (2-1/2" O.D. x 2-1/4" I.D.)
OW-29505	Receiver Tube (2" O.D. x 1-3/4" I.D.)
OW-305227	Installing Adapter
OW-305228	Removing Adapter

OW-7704

4WD Ball Joint Service Kit



- Use with ball joint kit **OW-7249** to remove and install upper and lower ball joints.
- For use on 1967 to current 1/2 & 3/4 ton 4WD vehicles having the Dana 44 front axle found on Ford, GM, Dodge, International and Jeep vehicles.

ML-601

Retaining Ring Plier



- For use on automobile transmission rings.
- 9-1/2" long with vinyl grips.

ML-15

Lock Ring Pliers



- For use on external, lightweight rings without pick-up holes.
- Jaws are scored on outside face and angled at 90°.
- For GM & Ford output shafts and intermediate carriers and other uses.
- Comfort cushion-grip handles with spring-return for ease of operation.
- Heat treated.
- Black oxide finish.

ML-21Z

Lip Seal Installation Tool

- For use on transmission service.
- Light weight zinc plated steel tubing with stainless steel blade; precision engineered for the application.



ML-22Z

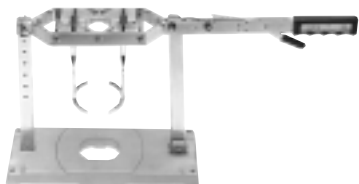
Lip Seal Installation Tool

- Precision engineered to service transmission.
- Constructed from light weight zinc plated steel tubing with stainless steel wire ends.



HG-KB20

Automatic Transmission Clutch Spring Compressing Tool



- For use on all types and models of American and foreign car Automatic Transmission Clutch Drums.
- Open design allows complete visual, hand, and tool access to snap ring and clutch plate.
- Crescent shaped pads protect thin pressure plates.
- Lightweight; about eight pounds.
- Self locking and quick release.
- Special long pressure bar extensions work on low, medium, high profile, deep drum & shaft extended models.
- Compact; portable or bench mounted.
- Specially designed pressure bar and base allows shaft to extend up or down through it.

KD-2398

Transmission Clutch Spring Compressor

- Compresses automatic transmission clutch springs on GM, Ford, Toyota and other transmissions.
- Easily remove and install snap rings.
- Job can be completed without removing center shaft and clutch assembly from transmission housing.



Ball Joint Sockets



PART NO.	SIZE	OUTSIDE DIA.	INSIDE DIA.	APPLICATIONS
WH-32	1-29/32"	2-9/16"	1-29/32"	Plymouth, Dodge cars
WH-33	2-1/8"	2-3/4"	2-1/8"	'72-'76 Dodge pick-ups and vans, and some '57 and later Chrysler, Plymouth & Dodge cars

WL-WA684

Magnetic Wheel Alignment Gauge



- Multipole ALNICO magnet, with built-in cutting teeth, removes burrs on hub surface.
- Housing of durable die cast aluminum, black for easy and accurate reading.
- Levels are recessed to prevent breakage.
- Packaged in protective metal chest.

RANGES

Camber:	+8° to -8° numerically by degrees
.....	and in increments of 1/2
Caster:	+14° to -6° numerically by degrees
.....	and in increments of 1/2
Kingpin:	+20° to -20° numerically by degrees
.....	and in increments of 1/2

WL-WA361

Toe Measuring Chain Gauge



- Portable, adjustable (46" to 74") toe measuring gauge.
- Always accurate because of the measuring principle applied to readings taken from front and back of the axle.
- For standard size cars and trucks.

WL-WA1000

Magnetic Gauge Rim Adapter



- For cars and light trucks with 16" maximum wheel diameter.

WL-WA510

Toe Gauge



- For quick, accurate toe readings.
- Offset legs allow bar to be used with vehicle on turntables or on the floor.
- Gauge reads from outside of one wheel to outside of the other.
- Made of heavy castings and galvanized 18 gauge welded steel tubing.
- Length: 8 ft., graduated in thirty-seconds.
- Readings not affected by bent wheels or irregular tire treads.

LS-41900

Pitman Arm Puller

- Heavy duty puller works on most cars and trucks.
- Designed to work on even the most stubborn Pitman arm pulling jobs.
- Position puller jaws over Pitman arm; turn center screw to free Pitman arm.
- Puller body is drop-forged and heat-treated for strength.



OW-7311A

Pitman Arm Puller

- For passenger cars and light trucks to 3/4 ton.
- Adjustable with special forged jaws.
- Has two clamp bolts that lock jaws on the Pitman arm for pulling, ensuring positive grip and leaving hands free for the pulling job.



OW-C6275

5 Piece Tie Rod Adjusting Tool Set



- Permits 360° rotation of the adjusting sleeve where space is limited.
 - Accommodates 1/2" drive ratchet or breaker bar.
- Set consists of the following in a blow-molded storage case:

PART NO.	APPLICATION
OW-7095	For compact cars with 3/4" dia. adjusting sleeves
OW-7096	For full size cars with 7/8" dia. adjusting sleeves
OW-7097	For light trucks with 1-1/8" dia. adjusting sleeves
OW-6274	For 3/4-ton and 1-ton trucks with 1-13/16" dia. adjusting sleeves
OW-6084	Pitman Arm adjusting tool for For 3/4-ton and 1-ton trucks with 1-7/16" diameter adjusting sleeves

Tie Rod Adjusting Tools

- Permits 360° rotation of the adjusting sleeve where space is limited.
- 1/2" sq. drive allows use of ratchet or breaker bar.



PART NO.	APPLICATION
OW-7095	For compact cars with 3/4" dia. adjusting sleeves
OW-7096	For full size cars with 7/8" dia. adjusting sleeves
OW-7097	For light trucks with 1-1/8" dia. adjusting sleeves

TG-20501

Automotive Universal Joint Kit



- Kit contains tools to fit cars, farm machinery, and light to intermediate sizes trucks.

Kit consists of the following in a plastic carrying case:

PART NO.	DESCRIPTION
TG-10202	Bearing Cup Installer Fits virtually all light and medium duty universal joints
TG-10105	Universal Joint Puller Fits U-joints with bearing cups 1" to 1.25" O.D.

JD-TC614

T.O.M.C.A.T. Camber Adjustment Tool



- Works on many GM and Chrysler vehicles using two-bolt lower strut mounts.
- Inflatable air bladder fits between tire and strut for easy and controlled adjustment of camber settings.
- Camber can be easily set with wheels on the ground.
- Eliminates the need for special camber bolt.
- Includes 2' air hose and air bladder, low-pressure pop-off valve to prevent overinflating, and air control valve for inflating and controlled deflating.

OW-7491C

GM Upper Control Arm Knock-Out Tool



- Remove the inserts on the upper control arm alignment brackets of light-duty GM trucks.
- Features an indexed forcing bolt that pull straight and evenly and works with off-center knock-outs.
- For use on 1989-2001 Chevrolet and GM 1/2-, 3/4-, and 1-ton trucks, 2- or 4-wheel drive. Can also be used on 1990-2001 all-wheel drive Chevrolet Astro vans and GMC Safari vans.

SL-90650

Rear Toe Adjustment Wrench



- Developed to allow for quick and easy rear toe adjustments on Ford Taurus and Mercury Sable Station Wagons 1986-1995, Lincoln Continentals.
- Use wrench with a long 1/2" drive extension to easily adjust the vehicle's toe alignment from outside the cramped suspension, wheel and tire area.
- Specially configured openings of the wrench fits easily over the toe adjuster cam.
- Adjustments can be made while vehicle sits on an alignment machine.
- Heat-treated for long term service.

SL-62200

BMW 21/22mm Bushing Wrench, 12 Point



- This narrow access wrench allows the technician to hold the lower "A" arm bushing nut with 12 point positioning on 1988 and later, 5 & 7 series BMWs.
- Box end feature allows a strong hold for quick removal of the bushing bolt.
- Works on the following applications: 22mm: 1988-1996, 5 & 7 series; 21mm: 1996 and later 5 series, plus 1996-2000, 7 series.
- Does NOT work on M5 models.
- **Intended for use on BMW bushing nuts ONLY!!**

WH-31

Tie Rod Socket



- 1/2" drive socket designed to fit most cars and some trucks.
- Length: 2-1/4".
- Inside diameter: 1-15/16".
- "U" opening: 1-3/8" x 3/4".
- Black oxide finish.

OW-C6295

Front End Service Set



- Allows for easy removal of the most popular types of Pitman arms, tie rods, and ball joints.
- Press-type ball joint separator allows for ball joint removal without the damage to boots and other parts that fork-type removers may cause.

- Kit includes the following in a plastic blow-molded case:

PART NO.	DESCRIPTION
OW-6296	Tie rod remover/Pitman arm puller
OW-6297	Ball Joint separator
OW-7314A	Pitman arm pullers
OW-7315A	Tie rod remover
OW-7503A	Tie rod remover/ball joint separator

OW-7315A

Universal Tie Rod End Remover



- Use on imports and many front wheel drive vehicles, including SUV's with rack and pinion steering. • Live center tip on forcing screw swivels to align tool to tie rod stud to ease in removal and prevent damage to stud.

LS-45750

Inner Tie Rod Tool



- Works on inner tie rods with inaccessible wrench flats. • Many inner tie rod sockets do not have a complete hex on the full length of the socket. • Rounded socket ends prevent access to the wrench flats. • Tool utilizes five crows feet, sizes 1-3/16", 1-1/4", 1-5/16", 1-7/16", and 33.6mm to engage the wrench flats. • The long socket then slips over the tie rod end and connects to the crows foot, permitting inner tie rod to be removed and installed without removing the rack from the car.

OW-7023

Tie Rod Adjusting Tool



- Permits 360° rotation of sleeve for required adjustment. • Four-position feature places tool correctly to properly grip sleeve even when access is limited. • Services most models of compact and standard-size passenger cars and light trucks.

PU-22

Tie Rod End Puller



- Powerful separating tool with tapered prongs. • Made from a single piece of drop forged, heat-treated steel. • Fork opening: 21/32". • Length: 11-7/8".

PU-26

Ball Joint Separator



- Place tool between steering knuckle and ball joint and strike with hammer. • Designed with tapered wedge and made from alloy heat-treated steel forging. • Fork opening: 15/16". • Length: 11-7/8".

OW-7932

Ford Vacuum Front Hub Release Tool Set

- For '98-newer 4x4's with vacuum front hubs: 4WD Rangers, F-250s, and F-350s. • Remove Ford plastic vacuum hubs without damage with this tool; for CV joint, ball joint and wheel bearing sensor service. • Removal clips slip in slots on hub to release connection; puller contains the clips and hub for removal. • Set includes Ford vacuum front hub puller and set of six (6) front hub removal clips.



OW-7080

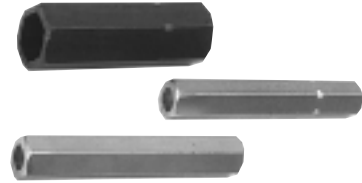
Ball Joint Spanner Wrench



- Designed for removal and installation of ball joint adjusting sleeves on 1/2-, 3/4-, and 1-ton Dana 44 open yoke front axles on Ford, GM, Chrysler, IHC and Jeep 4WD vehicles. • Permits easy torquing with 1" socket for proper upper ball joint preload.

LS-20400

Universal Shock Absorber Tool



- Remove/install shock nuts. • Includes two stem sockets for greater coverage. • Nut socket is double-ended to fit most shock nuts (15MM and 9/16"). • Fits most domestic models and some Ford OEM shock nuts.

Includes the following:

PART NO.	DESCRIPTION
LS-20410	Double ended Stem Socket
LS-20420	Hex Nut Socket
LS-20460	Stem Socket

LS-49050

Strut Clamp Bolt Removers



- Easily removes strut clamp bolts and other automotive bolts. • To remove bolts, loosen the flanged nut several turns. Place the tool over the flanged nut, and drive the bolt with an air hammer. • Two sizes fit most applications. • Shipping weight: 12 oz. • Patent pending.

SL-87300

VW and AUDI Strut Shock Nut Socket



- Remove/install shock retaining nuts used on most front wheel drive Volkswagen and Audi vehicles. • Nut is round on the outside with a slot across the top for gripping; tool has slot drive to fit the slot in retaining nut, a hole through its center for an Allen wrench to hold the shock from turning, and a 7/8" (22mm) hex diameter for easy wrench usage. • Heat treated steel in a SP High Tech black finish.

TE-62500

Coil Spring Compressor

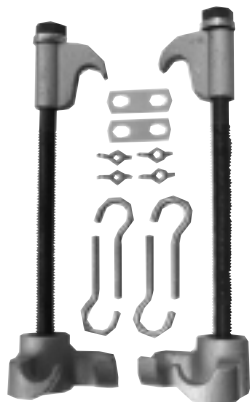
- Remove, install and compress coil springs that can be reached through the center of the coil. • Smooth bearing action; heat treated steel. • Single turning action on central shaft. • Handles standard, compact and sub-compact vehicles. **NOTE:** Should not be used on unusually large coil springs which have a coil O.D. larger than 5-5/8" or a wire diameter exceeding 3/4".



TE-62900

MacPherson Strut Coil Spring Tool

- Works on all modern domestic and imported vehicles.
- Use for shock absorber replacement, for spring set replacements, for bent strut or strut tube, or for damaged spindles.
- Can be used with impact wrench or hand tool.
- Use on or off the car.
- Contains instructions and safety kit.
- Do not use on GM "A", "J" or "X" body cars.
- Not for use on unusually large MacPherson springs which have a coil outside diameter of over 6" or a wire diameter larger than 5/8".



OW-C6494

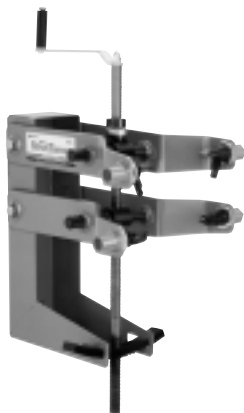
Clamshell Strut Spring Compressor

- Fit a wide range of struts and requires no special adapter shoes.
- Safety locking pins hold the compressor jaws in place.
- Tool compresses springs of 4" to 9" O.D. with wire diameters of 7/16" to 11/16".
- Built to use with an impact wrench.
- **Note: Not to be used on conventional coil springs.**



OW-6070A

StrutTamer™ Strut Spring Compressor



- An effective compressor for handling almost any straight, conical, or offset spring.
- With its adjustable arms and four-point locking jaws, the tool securely holds the spring for optimum safety.
- Adjustable center screw keeps strut and spring aligned.
- Crank designed to compress a spring faster and easier.
- Easy mounting to wall, workbench, or optional stand without adapters.
- Strut spring coverage: 2-1/2" to 10" spring diameters, 2-1/2" to 24" vertical stroke range.

OW-6071

StrutTamer™ Stand

- Designed for use with **OW-6070A** StrutTamer™.
- Features a one-piece welded steel frame construction with two wheels that allows the stand to easily tilt back and move the entire unit to the work area.
- To keep it firmly in place during compression, the wheels lift off the floor, and four no-slip rubber pads keep the stand firmly in place during operation.
- Weight: 61 lbs.
- Dimensions: 46"H x 30"W x 34"D.



Contact your local Cornwell dealer for complete details!

OW-C7948

Ten Way Slide Hammer Puller Set

- Pull flange-type rear axles, stubborn oil seals and bearings, and other press-fit parts.
- Jaws can be set up for two or three way internal or external pulling jobs.



Set consists of the following:

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
OW-10384	3	Hex Jam Nut	OW-34698	3	Pulling jaws for internal or external pulling jobs
OW-10394	1	Hex Jam Nut	OW-44148	3	6-1/2" Internal/External Puller Jaw
OW-22021	3	Hex Head Cap Screw	OW-47407	1	Puller Head
OW-24544	1	3-way cross head	OW-63104	1	Blow molded plastic storage case
OW-24545	1	Cone	OW-104427	1	1/4" x 2" Self-tapping screw
OW-24833	1	Forcing Screw	OW-205378	1	Grip wrench adapter w/single lead (wrench not included)
OW-27241	1	2-way cross-block			
OW-27315	1	Puller hook attachment	OW-205399	1	Retainer
OW-31599	1	Rear axle pulling attachment	OW-208627	1	Shank & T-bar Assembly
OW-32054	3	2-3/8" Internal Puller Jaw	OW-215895	1	Sleeve
OW-34331	1	Hammer (5 lb.)	OW-309321	1	Forcing Screw

OW-C7947

Eight Way Slide Hammer Puller Set

- Pull flange-type rear axles, stubborn oil seals and bearings, and other press-fit parts.
- Jaws can be set up for two or three way internal or external pulling jobs.



Set consists of the following:

PART NO.	DESCRIPTION
OW-1155	Slide hammer w/5 lb. hammer
OW-24544	3-way cross head
OW-24545	Cone
OW-27241	2-way cross-block
OW-27315	Puller hook attachment
OW-31599	Rear axle pulling attachment
OW-34698	3 pulling jaws for internal or external pulling jobs
OW-63104	Blow molded plastic storage case
OW-104427	1/4" x 2" Self-tapping screw
OW-205378	Grip wrench adapter w/single lead (wrench not included)
OW-205399	Retainer

OW-525

Flange Type Puller Combination Set

- Two specialty pullers in one box.
- Flange type puller - for removal of harmonic balancers, timing gears and other parts with two or three tapped holes.
- Also includes a steering wheel, pulley and flywheel puller.
- Comes with four sets of cap screws.



OW-C6501

Master Bolt Puller Set



- For use on a variety of jobs: harmonic balancers, steering wheels, crankshaft pulleys, and gear pulleys.
- Covers most cars, pickups, SUV's, and small engines.
- Capable of handling almost every two or three way bolt pull.
- Storage case and detailed application chart included.



WARNING!

Wear safety goggles. Puller parts under stress can break. Do not heat puller jaws which can change jaw strength. Do not overload pullers. Use multiple jaw pullers whenever possible. Never use any puller with worn or damaged parts. Read operating instructions thoroughly.

OW-1182

Lock-On, Jaw Type Puller Set

- Easily removes gears, bearings, timing gears, harmonic balancers and other press-fitted parts.
- Assemble components to create several versatile puller versions for internal and external tasks.
- Set includes 2- and 3-way puller head, 3 short and 3 long puller jaws, and plastic storage case.



PU-100

Bolt Style Puller Set



- Comes packaged in an attractive red high-impact styrene tray.
- Assemble to make Harmonic Balancer Puller or Steering Wheel Puller.

Set consists of the following:

QTY.	DESCRIPTION	QTY.	DESCRIPTION
1	Yoke	3	5/16"-18 x 2" Side Screws
2	Center Screws	3	5/16"-18 x 4-1/2" Side Screws
2	Swivels	2	5/16"-24 x 3-1/2" Side Screws
2	1/4"-28 x 3" Side Screws	3	M8 x 1.25 x 80mm Side Screws
3	3/8"-16 x 4" Side Screws	3	M10 x 1.50 x 50mm Side Screws
3	3/8"-24 x 2" Side Screws		

OW-1023

Two or Three Jaw Two Ton Puller

- Grip-O-Matic® puller with reversible jaws to remove/install parts for fast repair.
- Forged from quality steel, heat treated, and tested to excess of its rated capacity.
- Spread: 4-3/4" maximum.
- Reach: 3-1/4" maximum.
- Screw size: 3/8"-24 x 4-7/8" long.



OW-6008

Chrysler Crankshaft Damper Puller Insert



- Use with **OW-1023** to remove the crankshaft damper whenever timing belt, water pump, or front cover service is required.
- Services 3.5L V-6 engines in 1993-newer New Yorker, LHS, Concorde, Intrepid, and Vision; used on 2.0L 4-cylinder engines in 1995 and newer Cirrus/Stratus and Breeze.

OW-1027

Two or Three Long Jaw Five Ton Puller

- Grip-O-Matic® puller with reversible jaws to remove/install parts for fast repair.
- Forged from quality steel, heat treated, and tested to excess of its rated capacity.
- Spread: 7" maximum.
- Reach: 5-1/2" maximum.
- Screw size: 9/16"-20 x 6-5/16" long.



PULLERS

OW-1026

Two or Three Jaw Five Ton Puller

- Grip-O-Matic® puller with reversible jaws to remove/install parts for fast repair.
- Forged from quality steel, heat treated, and tested to excess of its rated capacity.
- Spread: 7" maximum.
- Reach: 3-1/4" maximum.
- Screw size: 9/16"-20 x 6-5/16" long.



OW-6013

Chrysler Crankshaft Damper Puller Insert

- Use with **OW-1026** to remove the crankshaft damper whenever timing belt, water pump, or front cover service is required.
- Services 2.4L 4-cylinder and 2.5L V-6 engines in 1995-newer Cirrus, Stratus and Breeze. Also services 2.0L 4-cylinder engines in 1995 and newer Neon.



PU-247

Flange Type Axle Puller



- Use as wheel puller or hub puller, as well as flange type puller.
- Bolt circle range: 4-1/2" to 5-1/2"; covers all major cars and trucks.
- Four slots in yoke allows tool to be used on either 4, 5, or 6 bolt or stud designs.
- 5 lb. sliding hammer on a 5/8"-18 x 22" center rod.

PU-247-1 Yoke only

PU-247-2 Center Rod Assembly

PU-499Z

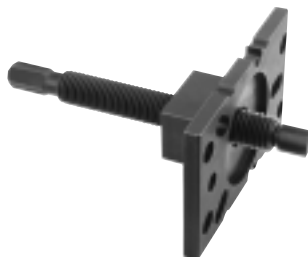
Special Flange Axle Yoke



- Designed to remove flange-type axles on compact and sub-compact and foreign cars.
- Smaller bolt circle range: 3-3/4" to 4-1/2".
- Used on either 4, 5, or 6 bolt or stud designs.
- Center hole is tapped with a 5/8"-18 hole.
- Used with PU-247 Axle Puller to remove hubs on most front wheel drive applications as well as conventional rear axles with bolt circles of 3-7/8" to 4-7/16".

OW-6290

4WD Front Hub Puller



- For removal of the front hub assembly, necessary for wheel bearing or brake rotor service. Provides the mechanical advantage and straight pull not possible with a slide hammer.
- Services the following: 1988-2000 GM 1/2 ton, 3/4 ton and 1 ton trucks, Tahoe, Suburban, and Yukon; 1994-2000 Dodge 1/2-ton, 3/4-ton, and 1-ton Ram trucks; 1997-2000 Ford 1/2-ton trucks and Expeditions; 1998-2000 Ford 3/4-ton and 1-ton trucks and Excursions; and 1985-2001 Jeep Cherokee

PU-498

Front Wheel Hub Puller



- Used on vehicles having independent front suspension, including passenger cars, both domestic and foreign front wheel drive and four wheel drive, as well as light trucks for removal of front hubs during brake or front wheel bearing service.
- Center screw is 5/8"-18 x 5-1/2" long with 3/4" hex head.
- Contrasting bright lustre plate and black oxide.

SH-77790

Hub/Rotor/Axle Puller



- Designed for the tough pulling jobs - hubs, rotors and axles.
- 10 pound slide hammer with unique adapter assembly to lock the pulling plate tightly.
- Fits adapters with 5/8" - 18 thread.
- Made in USA.

OW-7494A

Rear Axle Bearing Pullers Set



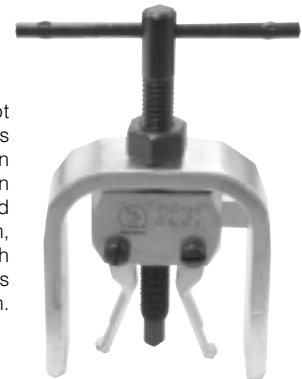
- Allows removal of semi-floating rear axle bearings.

Set consists of the following three sizes in a storage case:

PART NO.	DESCRIPTION
OW-7495A	Fits minimum bearing tube I.D. of 1" and maximum axle tube I.D. of 1-7/8"
OW-7496A	Fits minimum bearing tube I.D. of 1-5/16" and maximum axle tube I.D. of 2-3/8" including 1988-1997 Chevrolet and GMC 8-1/2", 1/2-ton rear axle bearing
OW-7497A	Fits minimum bearing tube I.D. of 1-3/8" and maximum axle tube I.D. of 2-7/8"

PU-193

Bearing Puller



- Used for removing flywheel pilot bearings on cars, trucks, and tractors where space is limited.
- Also used in pulling bearings and bushings on motors, generators, starters and magnetos.
- Capacity: 1/2" minimum, 1-1/2" maximum.
- Set complete with extra set of jaws for smaller bearings from 3/8" minimum to 1-3/8" maximum.
- 7-1/4" overall.

PU-193-3 Screw assembly only

PU-193-6 Large jaw only

PU-193-7 Small jaw only



WARNING!

Wear safety goggles when using pullers. Puller parts under stress can break. Do not heat jaws of pullers which can change jaw strength. Do not overload pullers. Use the proper size for the proper task. Use multiple jaw pullers whenever possible. Always be sure of hand positions when using slide hammer pullers. Never use any puller with worn or damaged parts. Read operating instructions thoroughly.

PU-66

Universal Hub Puller

- Heavy duty puller to remove wheel hubs mounted on tapered axles. • Fine threads provide additional power during the pulling operation. • Hub, handle and the three adjustable legs are drop forged from alloy steel.
- Legs can be extended to an 8" diameter bolt circle. • Can also be used for removal of press fit rear brake drums. • Center screw is 1"-14 x 9-1/2" with a 1-1/8" hex head. • Contrasting bright lustre plate and black oxide.



OW-C6298

Cornwell Front Hub Service Set

- Universal puller removes front hubs from most FWD cars without damaging wheel bearings. • Installer is used to pull the axle shaft into the front hub on Ford vehicles. • Spare locknut works with a standard slide hammer puller and the OW-7208A for rear axle flanges. • Includes three popular tools needed in a blow molded plastic case:



PART NO.	DESCRIPTION	APPLICATIONS
OW-7208A	Front Hub Remover	To push the axle shaft from the front hub
OW-7924A	FWD Front Hub Installer	Pulls the axle shaft into the front hub and fits axle shafts with 22mm x 1.5 thread on Ford Contour/Mystique, Probe, and Focus
OW-7135A	Ford Front Hub Installer	Pulls the axle shaft into the front hubs on Ford Taurus/Sable vehicles and fits axle shafts with 20mm x 1.5 thread

OW-7135A

Front Hub Installer

- For correct, damage-free installation of interference-fit spline halfshafts (20mm) when doing front wheel bearing service or halfshaft replacement.
- Pulls the axle shaft into the front hubs on Ford Taurus/Sable vehicles and fits axle shafts with 20mm x 1.5 thread • Works on Escort/Lynx, Tempo/Topaz, and Taurus/Sable cars.



KD-3358

Wheel Weight Tool

- Installs, removes, trims and tightens all types of clip-off wheel weights. • Features a special plastic-type material on hammer head for safe, mar-free installation of specially coated wheel weights used on alloy wheels. • Plastisol-dipped handle for comfort.



Cotter Pin Pullers

- Blade is made of durable steel with black finish. • Length: 8".



PART NO.	HANDLE	COLOR
CPP-5	Blue	
CPP-5NO	Neon Orange	

Bearing Splitters

- Designed for removing generator gears, bearings, bearing cones, and similar parts where ordinary puller jaws will not reach. • Knife edges are flush on one side to get behind the work for easy pulling.



PART NO.	CAPACITY	THREAD
PU-251	0" to 2-1/4"	3/8"-16
PU-252	0" to 4-1/4"	5/8"-18

OW-C6490

Cornwell Hub-Pro Bearing and Hub Remove/Replace Kit



- Installs front hubs of 22mm spline halfshafts on 1992-newer Probes, 1996-newer Contour/Mystiques. • Horseshoe-shaped plate (large adapter) attached to an "L" shaped frame fits on spindle and wraps around hub; in trapped rotor designs it fits between the rotor and the spindle. • Smaller adapter provided for better contact with different spindles. • Leaves front end alignment unchanged. • Pushes on steering knuckle bringing trapped rotor out the back without damage to the rotor; leaves steering knuckle intact.
- Lightweight puller - easy to work with and manipulate in tight fit situations.
- Impact wrench compatible. • Overall puller tool dimensions: 9"W x 6-7/8"L x 5-1/2" D. • Comes in plastic carrying case.



WARNING!

Wear safety goggles when using pullers. Puller parts under stress can break. Do not heat jaws of pullers which can change jaw strength. Do not overload pullers. Use the proper size for the proper task. Use multiple jaw pullers whenever possible. Always be sure of hand positions when using slide hammer pullers. Never use any puller with worn or damaged parts. Read operating instructions thoroughly.

Undercarriage
& Wheel

PSI-DT-105

Digital Pocket Tire Pressure Gauge

- Compact, lightweight gauge with ergonomic design provides instant reading. • Display holds reading for 15 seconds. • Pressure range: 1-100 PSI. • Displays to .5 PSI. • +/-1.0% accuracy. • Temperature and pressure compensation. • Shock resistant solid state electronics. • Long battery life.



WARNING!

Wear safety goggles. Inspect all tools for wear. Use the proper size for the proper task. Read operating instructions thoroughly.

DIGITAL TIRE PRESSURE GAUGES

- Improve tire performance, increase fuel mileage and increase tire life.
- Large, easy to read LCD numbers for precise readings.
- Easy to use with digital pinpoint accuracy.
- Polyurethane shock cover on gauge head.
- Shock resistant solid state electronics.
- Operating temperature: 0°F to 100°F.
- Long battery life with low battery indicator.

PSI-DT-150-01C

- Pressure range: 3-100 PSI.
- Resolution displays to .5 PSI.
- Operating temperature: 0°F to 100°F.
- +/-1.0% accuracy.



PSI-DT-150-34CV

- Convenient air bleed release button.
- Pressure range: 1-100 PSI.
- Resolution displays to .5 PSI.
- +/-1.0% accuracy.
- Heavy duty, easy-to-seal, tire chuck.
- Protection 'boots' at each end of hose.
- Temperature and pressure compensation.



PSI-DT150-38CV

- Professional truck tire pressure gauge.
- Straight push, 30° reverse, dual foot chuck and convenient hose whip.
- Convenient air bleed release button.
- Pressure range: 3-160 PSI.
- Resolution displays to .5 PS up to 100 PSI, 1.0 PSI resolution over 100 PSI.
- +/-1.0% accuracy.
- Protection 'boots' at each end of hose.
- Automatic electronic temperature and atmospheric pressure compensation.



PSI-DT160-10CV

Digital Competition Tire Gauge

- Digital accuracy, even with moisture or dirt particles from compressors.
- Large display is quick and easy to read.
- Heavy-duty pressure bleed valve bleeds air quickly.
- Manual zero set button assures accurate compensation for gauge offset.
- Instant reading while on pressure source - no need to wait for lights or beeps.
- Professional angle chuck with swivel is easy to handle for fast, positive valve seal.
- Long, 18", heavy-duty hose for easy wheel access.
- Rubber shock cover casing protects gauge head.
- Hose boot at chuck end protects from wear while improving grip.
- Temperature compensated.

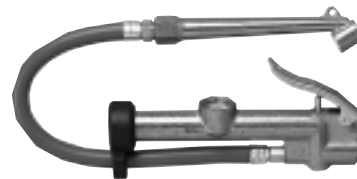


WARNING!

Wear safety goggles. Inspect all tools for wear. Use the proper size for the proper task. Read operating instructions thoroughly.

PL-17-850

Deluxe Inflator Gauge



- High quality, heavy duty inflator gauge with 12" hose and dual foot chuck.
- Rugged zinc casting with rubber bumper guard to protect against damage.
- Easy to read recessed sight glass.
- Replaceable valve assembly and gauging cartridge.
- Calibrated 10-120 PSI in 2 lb. steps.

AF-150RET

Tire Gauge



- Has 12" hose with straight-on chuck.
- Tapered chuck nut fits wheel cover holes on cars and light trucks.
- Ideal for use on wells and reels.
- Chrome plated castings with all brass internal parts.
- Plated steel handle riveted to body.
- Calibrated in 10-90 PSI in 2 PSI increments.

PL-17-551

Dial Tire Gauge

- Professional type dial in a drawn steel casing with a nickel plated brass chuck.
- Easy to read dial calibrated 10 to 60 PSI in 1 lb. increments and 50 to 400 kPa in 10 kPa increments.
- Automatic reset.
- Pressure release valve.
- Use for passenger cars, vans and light trucks.



CORNWELL TIRE PRESSURE GAUGES

- Recessed deflator pin cast into chuck head.
- Handy pocket clip.
- Cornwell Blue finish with white Cornwell logo.
- Convenient one-hand operation.

PL-17-509

Standard Tire Gauge



- For passenger cars, vans and light trucks.
- Calibrated 2 sides 10-50 PSI in 1 lb. units and 70-350 kPa in 10 kPa units.

PL-17-519

Truck Tire Gauge



- Ideal for higher pressure applications on step vans, lightweight trucks (1/2 to 2-1/2 tons), pickups and air shocks.
- Calibrated 2 sides 20-120 PSI in 2 lb. units and 150-840 kPa in 10 kPa units.

PL-17-533

Straight-On Truck Tire Gauge



- Straight "push-on" head for truck tires.
- Ideal for high pressure tires on large trucks with Budd wheels, step vans, pickups, air shocks and any difficult to reach high pressure reading.
- Perfect for inner wheels on duals.
- Calibrated 2 sides 20-120 PSI in 2 lb. units and 160-880 kPa in 20 kPa units.

MC-MS-4710B**Motorcycle Digital Tire Gauge**

- 5 to 99 PSI. • Easy to read, extra large display. • Sure-grip handle. • Rugged design.

PL-17-517**Tractor Tire Gauge**

- For air and liquid filled tires. • Includes special oiling and cleaning features to clean out corrosive fluids. • For tractors, heavy equipment, farm and construction vehicles. • Calibrated 5-45 PSI in 1 lb. units.

PL-17-521**Low Pressure Tire Gauge**

- Perfect for home garden tractors, golf carts, air springs and ATV's. • Calibrated 1-20 PSI in 1/2 lb. units. • Easy-to-read square nylon bar with dual calibration - PSI and kPa highlighted.

PL-17-523**Easy Reach Tire Gauge**

- For testing pressures on tires with wheel covers. • "Straight-On" type head makes hard to reach valves accessible. • Calibrated 10-50 PSI in 1 lb. units.

PL-17-525**Dual Foot Truck Gauge**

- For dual wheels; hard to reach valves. • Fits in pocket yet has a wide range to handle both cars and trucks. • Calibrated in 20 to 120 PSI in 2 lb. units and from 160 to 880 kPa in 20 kPa units.

PL-17-545**Dual Foot Service Tire Gauge**

- For heavy-duty use required at the service level. • For dual wheels and hard to reach valves on pickups, RV's, heavy trucks and off-road equipment. • Chrome plated brass with die cast chuck. • Calibrated in 10 to 160 PSI in 2 lb. increments and from 100 to 1100 kPa in 20 kPa increments. • Complete with handy hang-up hook.

PL-17-565**Straight-On Dual Foot Service Tire Gauge**

- For the difficult to reach inner dual. • Straight-on chuck for inside wheel and 30° reverse angle for outside wheel. • Calibrated 10-150 PSI in 2 lb. units.

**WARNING!**

Wear safety goggles. Read operating instructions thoroughly.

PL-40-395**Tire Tread Depth Gauge**

- Measures tread thickness remaining on tires. • Calibrated 0" to 1" in 1/32" markings. • Complete with handy pocket clip.

PL-17-395**Locking Straight On Dual Foot Chuck**

- Direct air line ball foot chuck with built-in shut-off valve (cannot be used on inflator gauges). • 1/4" Female NPT. • 150 PSI maximum air line pressure. • Comes with threaded deep well lock nut which locks on valve when tilted.

PL-17-383**Dual Foot Chuck**

- Direct air line ball foot chuck with built-in shut-off valve (cannot be used on inflator gauges). • 1/4" Female NPT. • 150 PSI maximum air line pressure. • Standard dual foot extension for valves on tractors, trucks or busses.

PL-17-351**Ball Foot Chuck**

- Direct air line ball foot chuck with built-in shut-off valve (cannot be used on inflator gauges). • 1/4" Female NPT. • 150 PSI maximum air line pressure.

PL-17-355**Clip-On Chuck Clip**

- Direct air line ball foot chuck with built-in shut-off valve (cannot be used on inflator gauges). • 1/4" Female NPT. • 150 PSI maximum air line pressure. • Fits all standard ball foot chucks with 672-32 thread. • Holds chuck to tire valve while inflating.

PL-17-730**Clip-On Chuck**

- **For inflator gauges ONLY!** Do not use on direct air lines where a shut-off valve is required in the chuck head. • 1/4" Female NPT, with universal adapter.

AF-922D**Four-in-One Valve Tool**

- Removes cores, restores damaged threads and removes broken cores.

MT-S444

Combination Valve Core Tool



- For easy removal and insertion of valve cores.
- One end for large bore, other end for standard bore valve cores.
- Heavy duty, firm grip.

PU-206

Seal Puller



- Designed for difficult to reach seals and others such as transmission seals and axle seals.
- For removal of most stubborn seals.
- Black oxide finish.

PL-41-506

Tubeless Tire Valve Inserting Tool



- Designed for installing rubber covered snap-in valves.
- Notched handle for sure grip and proper alignment.

LS-24800

Seal Driver Kit



- Quickly drives seals without damage.
- Set includes handle, washer and sixteen adapters for seals up to 3-3/8" diameter.
- Includes special adapters for "shielded" seals.

LS-12980

Bearing Race and Seal Driver Master Set



- Insert wheel bearing race and seals without damage to race and axle housing.
- Turn driver over to drive seals.
- Includes handle and nine driver sizes (Range: 1.565" to 3.180") to fit most standard wheel bearings in a plastic blow molded case.

LS-12940 Blow Molded Case

LS-12600

Bearing Race and Seal Driver



- Makes it easier to insert bearing race.
- Helps reduce damage to both race and axle housing.
- Comes with handle and six driver sizes (Range: 1.565" to 2.555") to fit most standard bearing race sizes.
- Turn driver over to drive seals.

CLS-56750

Seal Puller



- Pops oil and grease seals every time, fast and easy.
- Two size tips reach in and fit nearly all seal applications.

LTH-LT-950

Valve Core and Stem Cap Removal Tool



- Easily removes and replaces tire valve stem caps and valve stem cores for all tire and wheel applications.
- Dual purpose pen shaped tool is convenient pocket size.

OW-7077

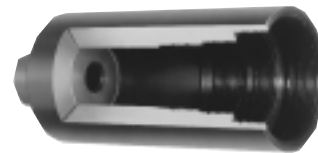
Axle Stud Cone Plier



- Removes the tapered cone from studs used on medium and heavy duty truck rear axles.
- Gives leverage needed to expand cone and remove it from the stud for axle removal.

LS-22200

4WD Spindle Puller



- Stepped design fits all common 4WD 1-1/2", 1-5/8" and 2" pick-up spindles.
- Use with either a 1/2"-20 or 5/8"-18 slide hammer.

OW-1929

Tubular Spanner Wrench



- 6-lug, spanner-type wrench removes and installs rear wheel bearing locknuts.
- The 3/4" drive square opening makes it possible to use a torque wrench for accurate adjustment of wheel bearings.
- For servicing '46-current Chevrolet and GMC 5,200 and 7,200 lb. axles.
- Socket O.D.: 2-5/8".

LS-28000

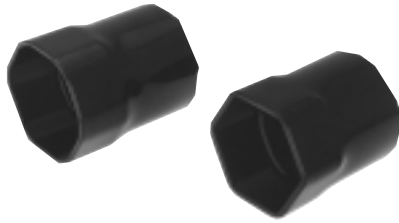
Ratcheting Lock Nut Tool



- Double-ended.
- Small end fits Ford 1986 to 1994 light trucks with Dana 44 front axle.
- Large end fits 1985 and newer Ford F-150 - F-350 trucks with the Dana 80 full floating rear axle.
- Press tool into lock nut; rotate to release ratchet inside the lock nut.
- Use 1/2" square drive torque wrench when installing. [Refer to Index for our Torque Wrench line]

Wheel Bearing Lock Nut Sockets

- Remove and install five popular sizes of wheel bearing lock nuts.
- Use with 1/2" drive to remove and install wheel bearing lock nuts on trucks and vans.
- Four of the sockets are for rounded hex nuts; one socket is for the popular 2-1/2" hex nut.



PART NO.	USED FOR:
LS-33150	2-3/8" Rounded Hex
LS-33160	2-1/2" Rounded Hex
LS-33170	2-3/4" Rounded Hex
LS-33180	2-1/2" Hex
LS-33190	2-9/16" Rounded Hex

OW-7090A

Front Wheel Bearing Locknut Socket

- Special 6-lug design services 1978-1984 Ford F-series H.D. 3/4-ton and 1-ton trucks and 1973-1981 GM 3/4- and 1-ton 4WD trucks.
- 3/4" square drive.
- 2-3/8".



OW-7157

Front Wheel Bearing Locknut Socket

- Services 1993-newer Ford Ranger, Bronco II and Explorer with manual hubs, 1995-newer Ford F-series 1/2-, 3/4-, & 1-ton trucks and full size Bronco with manual hubs; 1959-1985 Ford F-series 1/2- & 3/4-ton truck and full-size Bronco; 1960-1990 GM 1/2-ton truck and full-size Blazer/Jimmy; 1969-1972 International 1/2-ton trucks; 1969-1989 Dodge 1/2-ton trucks with manual hubs.
- 3/4" square drive.
- 2".



OW-7158

Front Wheel Bearing Locknut Socket

- Handles the larger diameter (high-torque) nut used on 1982-1990 GM H.D. 3/4- & 1-ton trucks, 1985-1/2-1995 Ford F-series H.D. 3/4- & 1-ton Dana 50 IFS or Dana 60 front axle, 1985-1995 Ford F-series 1/2-ton truck and full-size Bronco with Dana 28 front axle, 1994-newer Dodge Dana 60 with Cummins.
- 3/4" square drive.
- 2-5/16".



OW-7269

Front Wheel Bearing Locknut Socket

- For use on 1985 and newer Ford F-series 3/4- & 1-ton trucks with Dana 80 rear axles.
- 3/4" square drive.
- 2-1/4".



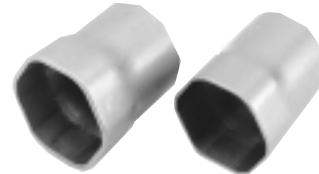
OW-7270A

Front Wheel Bearing Locknut Socket

- Used on 1984-1992 Ford Ranger and Bronco II with manual hubs; 1986-1995 Ford F-series 1/2-ton truck and full size Broncos with Dana 44 front axle; and 1990-1993 Dodge trucks with Dana 44 automatic hubs.
- 3/4" square drive.
- 2-1/8".



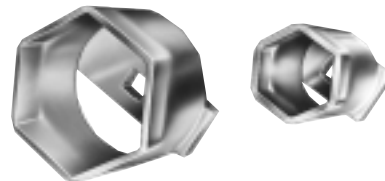
Front Wheel Bearing Locknut Sockets



- 3/4" square drive.

PART NO.	DESCRIPTION
OW-7795	Fits special 2-1/2" rounded hex nut found on 1995-newer Ford F-series 1/2-ton trucks & full size Bronco with automatic hubs; thin wall design for easy access to nut; Similar to Ford tool T95T-1197-A
OW-7796	Fits special 2-3/4" rounded hex nut found on 1995-newer Ford F-series 3/4-ton & 1-ton trucks with automatic hubs; Similar to Ford tool T95T-1197-B

Truck Wheel Bearing Locknut Sockets



- Wheel bearing locknuts are easy to remove or install with these specially designed sockets.
- Made of high-strength steel and resist rounding out.
- Designed for use with 3/4" square drive manual tools only. Impact tool use voids warranty.
- Measure from flat to flat to determine size of locknut, then choose appropriate socket.
- Fits special "rounded" hex nut as found on Dana axles of some Ford trucks.

PART NO.	OPENING SIZE	PART NO.	OPENING SIZE
OW-1901	2-3/32" (6 pt.)	OW-1909	3-1/4" (8 pt.)
OW-1902	2-3/8" (6 pt.)	OW-1910	3-1/2" (6 pt.)
OW-1904	2-9/16" (6 pt.)	OW-1914	4" (6 pt.)
OW-1905	2-9/16" (8 pt.)		



WARNING!

Wear safety goggles. Read operating instructions thoroughly.

LS-19852

Truck Axle Oil Drain Pan



- Catches oil from wheel hubs after removing cap.
- Fits rims with 13-3/4" inside diameter and larger.
- Handle compartments hold hub nuts out of the oil.
- Made of polypropylene for durability.
- Will not warp if oil is warm.
- Capacity: 88 oz.

RB-938

6 Piece Universal Wheel Stud Installer Kit



- Patented six piece set to install the new wheel stud correctly the first time.
- Washer, spacer, and nut pull the stud into the hub at the correct angle.
- Stud installers are black-oxide plated and heat-treated; will not damage wheel stud threads.
- Components are impact gun compatible.
- Set includes four nuts: 7/16"-20, 1/2"-20, 12mm-1.5, and 12mm-1.25; one washer and one spacer.

RB-936 Washer

RB-755

6 Piece Light Truck Wheel Stud Installer Kit



- Patented six piece set to install the new wheel stud correctly the first time.
- Washer, spacer, and nut pull the stud into the hub at the correct angle.
- Stud installers are black-oxide plated and heat-treated; will not damage wheel stud threads.
- Components are impact gun compatible.
- Set includes four nuts: 1/2"-20, 9/16"-18, 12mm-1.75, and 14mm-1.50; one washer and one spacer.

LS-30950

CV Joint Banding Tool



- For all Band-It® and Band-It Jr.® style clamps.
- Use 5/8" socket or wrench to wind and crimp new band on boot.
- Tool is easily disengaged from the band after the band is tightened.

Band-It® and Band-It Jr.® are trademarks of Band-It-IDEX, Inc.

LS-30500

CV Boot Clamp Pliers (Earless-Type)



- For Earless-Type clamps including those found on late model GM inboard CV joints.

LS-30800

CV Boot Clamp Pliers (Ear-Type)



- For all ear-type clamps including GM FWD outboard CV joints.
- Designed for use with a torque wrench, as required for stainless steel bands.



WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

JS-98201

CV Boot Installer



- Installs the CV boot without dismantling the half-shaft.
- Simple on and off switch control. While in the off position, the CV boot can be placed over the closed "arms" of the tool. By switching the tool to "on" the "arms" of the tool open, and the CV Boot is stretched to fit over the CV joint for easy installation.
- By eliminating the need to disassemble the half-shaft in order to change a CV boot, this device will allow the technician to complete the job in 1/3 less the normal time.
- Compressed air operated.
- Weighs only 6 lbs.

JS-98211

CV Circlip Tool



- Quickly removes the circlip with ease after the CV boot has been removed.
- Simply place the tool between circlip prongs and expand tool levers.
- Self-locking mechanism.
- Made from stainless steel.
- Fits Vauxhall/Opel/GM, Ford, Citroen, Renault, Peugeot and Fiat.

VM-V216

Hub and Dust Cap Pliers



- Removes all types of decorative wheel covers.
- Removes and replaces stubborn dust caps.
- Jaws are ground for firm bite on dust cap either in front or behind flange.
- Also grips dust caps without flanges.
- Hammer head replaces dust caps.
- Alloy steel, heat treated and zinc plated.

VM-V214

Heavy Duty Hub and Dust Cap Pliers



- Heavy duty tool quickly removes all types of decorative wheel covers and the most stubborn dust caps.
- Heavy jaw end can be used to hammer dust caps back on.

OW-C1944

5 Piece 1" Drive Budd Wheel Socket Set



- Extra deep design allows for the removal of both nut and stud with just one socket.
- Usable with a 1" square drive impact wrench.
- The metric sizes work on the import truck Budd wheels, and the 1" hex is for American-made trucks with dual rear wheels.

- Set consists of one of each of the following:

PART NO.	DESCRIPTION
OW-C1945A	35mm Hex Budd Wheel Socket
OW-C1946A	38mm Hex Budd Wheel Socket
OW-C1947A	41mm Hex Budd Wheel Socket
OW-C1948A	33mm Hex Budd Wheel Socket
OW-C1949A	1" Hex Budd Wheel Socket

Dual Budd Wheel

Sockets

- Two openings: 13/16" square and 1-1/2" hex.
- Simultaneous removal or installation of Budd wheel nut and stud cap.



PART NO.	DRIVE SIZE	DIAMETER	LENGTH
I-5-4826BW	3/4" Sq.	2-1/4"	3-5/16"
I-6-4826BW	1" Sq.	2-1/4"	3-3/8"

STLN-7S



7 Piece Metric Lug Nut Set, 1/2" Drive, 6 Point Deep Sockets



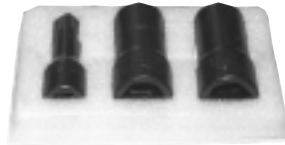
Set consists of the following Part Numbers and sizes:

PM-3230L	30MM	PM-3234L	34MM
PM-3231L	31MM	PM-3235L	35MM
PM-3232L	32MM	PM-3236L	36MM
PM-3233L	33MM	ST-93	Tray

STLN-3PFS

3 Piece Lug Nut Set

Set consists of the following in a polyfoam tray:



PART NO.	DESCRIPTION
EB-3-3	1/2" x 3" Industrial Finish Extension
P-322426	1/2" Dr. Dual Purpose Wheel Nut Socket (3/4" & 13/16")
PM-321921	1/2" Dr. Metric Dual Purpose Wheel Nut Socket (19MM & 21MM)

EB-3-3

Extension (Ball Type Retainer)



- Use in conjunction with **P-322426** or **PM-321921** Dual Purpose Wheel Nut "Flip" sockets.
- Shank Diameter: 9/16".
- Overall Length: 3".

Dual Purpose Wheel Nut Sockets



- 1/2" square female drive is between the openings.
- Use with **EB-3-3** Extension.

PART NO.	HEX OPENINGS
P-322426	3/4" and 13/16"
PM-321719	17MM and 19MM
PM-321921	19MM and 21MM

SM-71200

Lug Nut Socket Set



- Two size sockets fit most lug nuts to remove locked/damaged lug nuts without a key; also works on hex nuts.
- Tapered left-handed thread grips straight or tapered nuts.
- Use with 1/2" drive impact or breaker bar.

Truck Wheel Stud Installers



RB-758

5/8-11 Truck Wheel Stud Installer

- Used for installing drive flange and spoke-wheel studs.
- 1-1/4" hex.
- Sizes 5/8 - 11 (RB-758) and 3/4 - 10 (RB-759).
- Easily turns studs without damage to threads.
- Easily releases stud when removing tool.

RB-759

3/4-10 Truck Wheel Stud Installer

SL-63100

BMW Rear Toe Adjuster



- For BMW 1997 and later 5 series, 2000 and later X5 series, and 1995 and later 7 series vehicles that have 16MM or 18MM crush nuts on the rear toe cam bolt adjusters.
- Double ended 12 pt. box wrench design with a non standard, zero degree angle.
- Made with extended box end hex offset and custom fit length.
- Use to access these fasteners in the extremely confined areas.

OW-C4543

6 Piece 4WD Spindle Nut Socket Set



- Chrome vanadium steel sockets cover most SUV and light truck applications.
- Sockets have 1/2" square drive, allowing use of a torque wrench, ratchet, or breaker bar.
- Weight: 13 lbs.
- Includes the following in a plastic, blow-molded storage case:

PART NO.	DESCRIPTION
OW-4543-1	Toyota 4-Lug Locknut Socket
OW-4543-2	Ford 4-Lug Locknut Socket
OW-4543-3	4-Lug Socket "F" Series
OW-4543-4	6-Lug Socket
OW-4543-5	4-Lug Socket /Ranger, '93 Bronco
OW-4543-6	FWD Front Spindle Puller

OW-C4547

7 Piece Front Wheel Drive Axle Nut Socket Set

- 1/2" drive, 6 point deep chrome molybdenum sockets designed to remove and install the axle nut on most foreign and domestic front wheel drive cars and SUVs.
- Use with a ratchet, breaker bar, or torque wrench.
- Weight: 10 lbs., 6 oz.
- Includes the following in a plastic, blow-molded storage case:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
OW-4547-29	29MM	OW-4547-35	35MM
OW-4547-30	30MM	OW-4547-36	36MM
OW-4547-32	32MM	OW-4547-38	38MM
OW-4547-34	34MM		

PM-3236

Volkswagen Rear Axle Nut Socket, 6 Point

- Designed for use in power applications to remove and replace VW rear axle nuts. • 1/2" Square Drive. • 36MM Male Hex. • Industrial finish. • Length: 2-1/4".



WS-RST

Wheelsaver® Rim Straightening Tool

- Straightens damaged wheels from 14" to 20" in minutes. • Works on all aluminum, alloy, mag and steel wheels. • Completely mobile with a combined weight of just 50 lbs. • Requires no air or electricity. • Compact - fits into a standard size tool box. • System contents: 8,000 PSI hydraulic hand pump, 4 Ton hydraulic ram, 5 ft. hydraulic jack hose, 3.5" extension tube, male connector, system couplers, safety hook, plate and wing nut, wheel dies (14"-20"), compression spring and attachment, and instructional CD. • To enhance the functionality, it is recommended that the following common tools and equipment jointly be used with the Wheelsaver®: heavy duty steel hammer, heating torch-either propane or oxygen/acetylene, insulated gloves, safety glasses, and foundation - such as a Tire Changer or Workmate.



JS-50061-8

Wheel Torque Master Kit

- For foreign and domestic cars and light trucks. • No maintenance (no moving parts). • Color-coded, lettered sockets. • Use with 1/2" drive pneumatic impact wrench. • Custom molded carrying case with car/proper torque chart. • Avoid over torquing wheel nuts; prevents wheel vibration, damage to alloy wheels, distortion of wheel, drums and rotors, brake pulsation, damaged or broken studs.



Kit includes the following:

PART NO.	SIZE	TORQUE VALUE
JS-50062	13/16"	100 ft.-lbs.
JS-50063	21MM	80 ft.-lbs.
JS-50064	19MM	100 ft.-lbs.
JS-50065	21MM	60 ft.-lbs.
JS-50066	19MM	80 ft.-lbs.
JS-50067	19MM	65 ft.-lbs.
JS-50068	17MM	80 ft.-lbs.
JS-50069	17MM	55 ft.-lbs.

CI-EM43

Wheel Balancer

- Small, high precision balancer. • Ideal where space is at a premium. • Compact in dimensions and weight for installation in road-side emergency assistance vehicles. • Self-calibrating; self-diagnostic. • Digital LCD display. • 16 Bit microprocessor. • Type of balancing programs: Standard, Static, Aluminum, Motorcycle and CTS. • Power requirements: 110/220V single phase 50/60 Hz.



Contact your local Cornwell Dealer for complete details!

JS-50061-4

4 Piece Domestic Torque Kit

- Work on all domestic makes of cars, light trucks and vans. • Sockets are color-coded and lettered for easy identification. • Use with 1/2" drive pneumatic impact wrench. • Custom molded carrying case with cars/proper torque chart.



Kit includes the following:

PART NO.	SIZE	TORQUE VALUE
JS-50062	13/16"	100 ft.-lbs.
JS-50064	19MM	100 ft.-lbs.
JS-50066	19MM	80 ft.-lbs.
JS-50070	7/8"	120 ft.-lbs.

JS-75032

Hubcap and Wheel Removal Kit

- Remove and replace GM, Ford, Chrysler and McGard hubcap locks and aftermarket wheel lug locks without damaging the lock or stud. • Kit includes: GM hubcap lock remover, Oversize McGard wheel lock remover, Lug nut remover punch, Durable plastic carrying case, GM sprocket hubcap lock remover, Large universal locking lug nut remover, Large wheel cover lock remover (also fits stripped 18MM lug nuts), Corvette, GM "N" and "F" body wheel lock remover, and directions for use. • Made in the U.S.A.



JS-75032-4

18MM GM/Ford Lock Socket

- For stripped 18MM Lug Nuts, GM Wheel Cover Locks, '88-'89 Ford Wheel Locks - drive socket onto lock; turn tool with a 1/2" drive to remove lock.



LTH-LT-1460

5 Piece 1/2" Drive Wheel Torque Extension Set

- For torquing wheel nuts on most foreign and domestic cars and light trucks to the correct torque with thin wall or regular lug nut sockets. • Does the work of 13 regular torque sockets! • Helps eliminate damage to wheels when torquing wheel nuts.

Set consists of the following in a blow molded case:

PART NO.	DESCRIPTION
LTH-LT-1400-C	1/2" 100 ft.-lb. Wheel Torque Extension
LTH-LT-1400-E	1/2" 80 ft.-lb. Wheel Torque Extension
LTH-LT-1400-F	1/2" 65 ft.-lb. Wheel Torque Extension
LTH-LT-1400-I	1/2" 120 ft.-lb. Wheel Torque Extension
LTH-LT-1400-Q	1/2" 140 ft.-lb. Wheel Torque Extension



CI-A9212T.I.

Tire Changer

- Built-in table top inflator with adjustable air jets in the jaws.
- Unique mount/demount head - does not touch rim during operation.
- Convenient locking handle locks head automatically away from rim.
- Upper arm assembly swings out-of-way for operator convenience.
- Powerful action bead-breaker blade.
- Heavy duty turn table.
- Wheel chucks - four contact points for powerful, yet gentle chucking of rim.
- Stainless steel cylinder.



Contact your local Cornwell Dealer for complete details!

TH-803

Universal Master Cylinder Bleeder Kit

- Fits import and domestic vehicles using USS (English) or metric master cylinder threaded fittings.
- Aluminum fittings tightly seal both ISO and inverted flare master cylinder ports.



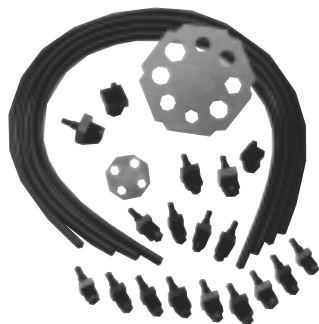
Kit includes:

QTY.	ADAPTERS	QTY.	ADAPTERS
2	3/8" - 24	1	12mm x 1.50
1	7/16" -24	1	13mm x 1.50
1	9/16" - 18	4	20" Urethane Tubes
1	9/16" - 20	1	Thread Gauge
2	1/2" - 20	1	Instruction Sheet
4	10mm x 1.00	1	Tube Holder
2	10mm x 1.25	4	Check Valve Assemblies
1	11mm x 1.50	1	Carrying Case
2	12mm x 1.00		

TH-804

US/Metric Master Cylinder Bleeder Kit

- Similar to the TH-803, but with economical plastic adapters.
- Fits import and domestic vehicles using USS (English) or metric master cylinder threaded fittings.



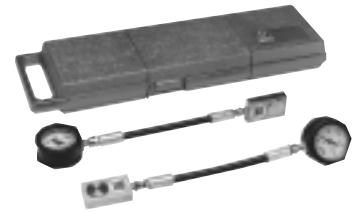
Kit includes:

QTY.	ADAPTERS	QTY.	ADAPTERS
2	3/8" - 24	2	12mm x 1.00
1	7/16" -24	1	12mm x 1.50
1	9/16" - 18	1	13mm x 1.50
1	9/16" - 20	4	20" Urethane Tubes
2	1/2" - 20	1	Thread Gauge
4	10mm x 1.00	1	Instruction Sheet
2	10mm x 1.25	1	Tube Holder
1	11mm x 1.50		

WN-BEQ-0197

Brake Equalizer™

- Helps troubleshoot sticky or frozen brake calipers, uneven brake pad wear, improperly adjusted proportioning valve, air in hydraulic brake system, power booster problems, imploded hoses, worn master cylinders, etc.
- Simple to use: install the rectangular end (load cell) in place of a brake pad on both the left and right brake calipers of the car, center the load cell piston on the caliper piston, step on the brake pedal and the caliper pressure will be displayed on the gauges.



VP-18-0079

Basic Drainman Bleeder

- Powerful - 25" vacuum developed!
- Large 2.6 quart canister.
- Tripod canister legs allow for better stability when connected to shop air. Bleeder can be operated from the floor leaving hands free to service bleeder valve.
- Extended leg offers convenient storage of refill bottle and brake tool storage inside the other legs.
- Long, 10' vacuum hose.
- Universal bleed screw fitting works on conventional and ABS brake systems.
- Universal drain valve for quick, easy emptying of canister without disassembly.
- Open/Close on drain valve reduces risk of spillage or leaks.
- Metal internal components (nickel plated brass) for added durability, longer life.



VP-18-9989

Complete Drainman Bleeder

- Complete system with all the features of the VP-18-0079 as well as a Mark III Refiller - makes bleeding a one person operation!



ABW-70850

Brake Bleeding Kit

- Suits all braking systems (including ABS) and majority of brake nipples.
- Allows one man operation.
- Compact and portable design - fits into wheel arch area.
- Fast efficient vacuum bleeding.
- 500ml (18.5 fl. oz.) container equipped with overfill check valve.
- Quick release locking trigger.
- Universal rubber bleed screw fitting.
- 700mm (28") bleeder hose.
- Convenient hanging hook.
- Operates on shop air.



SPECIFICATIONS

Air pressure:	 Min 550Kpa (80 psi)
	 Max 900Kpa (130psi)
Air Consumption:	 Max 180 ltr/min (10 cfm) at 100 psi
Vacuum:	 24 in.Hg at 100 psi.
Thread Connection:	 1/4" BSP

PX-BB-1

Bench Bleeder

- Based on a kit built specifically for Hyundai Motor Company to solve difficult master cylinder bleeding problems by removing all the air from the component prior to its installation.
- Enables the technician to perform pressure, vacuum and RFI™ bleeding.
- Bench bleed any master cylinder (especially 2 and 4 outlet quick-take-up master cylinders), ABS unit, caliper, wheel cylinder or hydraulic component in minutes using patented technology.



JS-97321

ABS Brake Pressure Tester Kit

- Use to test Hydraulic Pressure available to each wheel assembly from the master cylinder and ABS pressure accumulator.
- Allows for balance testing, ensuring pressure is being applied equally to both front or rear wheels.
- Features complete line of adapters for testing of most standard and ABS brake systems.
- Equipped with dual scale 0-3,000 psi / 0-300 kg/cm² gauge assemblies.
- Includes pressure reference table.



PX-BF-1

Brake Free Bleeder Valve Remover



- Plugs into a standard air hammer and then over the bleeder valve.
- Vibrates the bleeder valve and can be worked back and forth with a 3/4 wrench.
- 95% effective in removing rusted bleeder valves.

TH-346

Master Cylinder Bleeder Kit

- Makes bleeding a 5-minute, one-man job.
- Bleeds master cylinder on/off car.
- Contains an assortment of adapters to fit most American cars.
- Comes with hang-up storage box and full instructions.



PX-FASCAR-1-100

Strip Dip™ Brake Fluid Test Strips

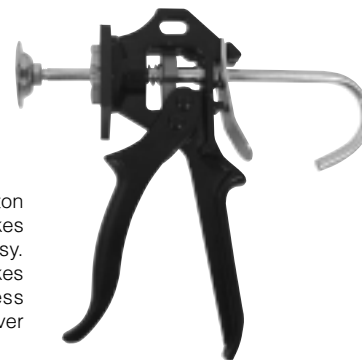
- Immerse a Strip Dip™ in brake fluid, and in 30 to 120 seconds the reaction zone changes color based on alpha contaminant levels, a direct indication of loss of corrosion inhibitors.
- Measures "virtual age" of brake fluid; Provides a precursor warning to active corrosion.
- Simple color chart indicates the FASCAR™ rating between 0 and 100.
- Supports the time/mileage recommendation of 70% of the world's auto manufacturers.
- Founded on scientific data and can be confirmed by the use of high tech lab equipment.
- Provides a "recommendation" for service, and the strip can be given to the customer for visual proof.
- Not a moisture or PH test.



LS-24300

Quick Disc Brake Pad Tool

- Quickly push disc brake piston back into the caliper bore.
- Makes pad replacement quick and easy.
- Will **NOT** work on rear disc brakes that requires rotation to depress piston.
- Comes with release lever to quickly retract pusher rod.



OW-3890

Brake Fluid Safety Meter



- Check condition of brake fluid in less than a minute.
- Powered by the vehicle battery; won't operate if connected to the wrong polarity.
- On-screen prompts lead you quickly through testing.
- Find the minimum boiling (vaporizing) point along with minimum recommended levels for various types of brake fluid.
- Works on DOT 3, DOT 4, and DOT 5.1 fluids.
- No consumable test strips; buy this tool and test every vehicle that comes into your shop.

SPECIFICATIONS

Accuracy at 212° - 356° F	1% typical, 3% max.
Accuracy above 356° F	3% typical, 5% max.
Testing Time	5-60 seconds
Operating Temp. Range	32° - 122°F

VM-B455

Brake Bleeder Wrench

- For bleeding rear wheel brake cylinders on 1978 and later GM cars. • Brake fittings are recessed and difficult to bleed. • The 24" of plastic tubing permits simplified bleeding of brake fluid into any container. • 5/16" socket with "O" ring.



Brake Bleeder Wrenches

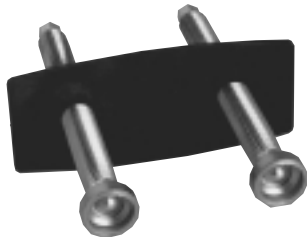


- Designed for hand clearance and extra leverage on brake bleed nipples.
- Feature a strong 6 point hex to keep fittings from stripping. • Alloy steel, heat treated, black oxide plated.

PART NO.	DESCRIPTION
VM-B456	5/16" x 3/8" Hex Openings for GM, Ford, Chrysler
VM-B457	8MM x 10MM Openings for GM, Datsun, Honda
VM-B460	7MM x 9MM Openings

RB-3054

Ford Truck Dual Piston Tool



- Pushes both pistons back into the caliper, allowing quick, easy brake pad replacement on or off vehicle. • For use on 1987 to present Ford F250, F350, E250, E350, 2WD and 4WD applications.

LS-28600

Disc Brake Piston Tool



- Rotates piston in the caliper when replacing pads. • Fits domestic and some import applications. • Use on vehicles with four wheel disc brakes.
- Use with 3/8" drive ratchet and extension.

OW-6002

ABS Pressure Switch Socket



- Thin wall socket designed to remove/install Bendix 10 ABS pressure switch on 1990 and newer Dodge Monaco, Eagle Premier, and 1991 and newer Chrysler, Plymouth, and Dodge mini-vans without damage. • 3/8" drive for use with a ratchet.

LS-25000

Rear Disc Brake Caliper Tool



- For rotating pistons back into the caliper to provide clearance for new pads. • Includes five adapters for use in both 2- and 4-wheel rear disc brake assemblies of most domestic and import cars. • Tool may be used on or off car. • Helps prevent damage to the piston and boot. • Use with a ratchet and 3/8" drive extension.

Includes the following adapters:

PART NO.	DESCRIPTION
LS-25080	1-1/2" adapter (narrow pins) for most Hondas, Mazdas, Dodge Conquests, Mitsubishi Starions and 1-1/2" GM's (wide pins) for most Fords, Toyotas and Fieros
LS-25110	1-5/8" adapter for most Nissans/Datsuns and Subarus
LS-25130	1-7/8" GM adapter
LS-25150	2-1/8" GM adapter
LS-25170	2-1/2" GM adapter

KD-2326

Tire Tread and Brake Lining Gauge



- Measures the amount of lining remaining on riveted and bonded drum shoes and disc brake pads. • Measures tire tread depth up to 9/16" in graduations of 1/64".

RB-380

Brake Resetting Gauge



- Wide working range allows it to measure drums from 6-1/2" to 13-1/4" in diameter. • Speeds drum brake service when used to determine the proper clearance between brake lining and drum prior to assembly. • Services all foreign and domestic cars and light trucks with drum brakes. • The knurled wheel locks the measurement at the appropriate inch or metric calibration during use.



WARNING!

Wear safety goggles when using brake tools & equipment.
Always use caution and proper safety practices.
Read operating instructions thoroughly.

Jacobs Engine Brake Sockets, 6 and 12 Point

- Will service Jacobs brakes on most Cummins and Detroit diesels.



6 PT.	12 PT.	OVERALL BROACH			OUTSIDE DIAMETER		BOLT CLEARANCE	
		NOMINAL	LENGTH	DEPTH	SOCKET END	HANDLE END	DIAMETER	DEPTH
	P-3120LJB	5/8"	5"	5/8"	15/16"	15/16"	39/64"	4-3/8"
	P-3220LJB	5/8"	5"	5/8"	15/16"	15/16"	9/16"	4-3/8"

KD-2324

Brake Lining Gauge

- Measures brake lining from 0 to 1/2" in 1/64" graduations.
- Place gauge over brake shoe to take reading.



KD-2116

Disc Brake Lining Wear Gauge

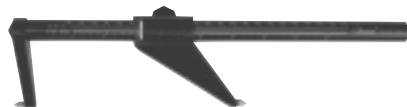
- Measures brake lining remaining on bonded pads in fractions from 1/16" to 5/8" in 1/32" graduations.
- Checks measurement without removing caliper.



CE-6456

Brake Drum Wear Limit Gage

- Mechanical brake drum gage to pre-inspect scored automotive brake drums to determine if they can be safely machined.
- Measuring Range: 6" to 14.25" (150mm to 360mm).
- Graduations: 1/32" (1mm).
- Pointed contacts.



KD-282

Truck Brake Adjusting Tool

- Adjusts clearance between brake drum and brake shoe.
- Fits through slot in backing plate and turns star wheel.
- Designed to clear axle housing to reach slot in top of backing plate on some trucks.



OF-1030

Brake Adjusting Tool

- Designed for Ford, Mercury vehicles with or without rear disc brakes and GM cars with brake adjuster slots in brake drum, small pickup trucks including Ford, Dodge, GMC, Chevrolet, Jeep and several pre-1980 import cars and pickups.
- Bright lustre plate.



OF-1031

Brake Adjusting Tool

- Most universal and popular model.
- Designed for GM full size cars and pickups, medium duty trucks, cab and chassis motor homes, vans (both Chrysler and GM), Ford light trucks and older cars with front drum brakes.
- Forged at proper angle with one end ground tapered.
- Bright lustre plate.



OF-1032

Brake Adjusting Tool

- Concave ends work without slipping.
- For cars having narrow type or adjusting nut.
- Bent to clear body and frame.
- Bright lustre plate.



OF-1034

Brake Adjusting Tool

- Designed for both left and right side brake star wheels on rear wheel drive Chrysler and GM vehicles, Plymouth, Dodge and Dodge trucks, Oldsmobile and Buicks.
- Bright lustre plate.



ZZ-7BTS

7 Piece Brake Tool Set



Set consists of the following in a polyfoam tray:

PART NO.	DESCRIPTION
CLS-24400	Disc Brake Pad Spreader
OF-1030	Brake Adjusting Tool
OF-1031	Brake Adjusting Tool
OF-1040	Brake Spring Plier Bendix
OF-1044	Brake Shoe Retain. Spr. Tool
VM-B456	Brake Bleeder Wrench
VM-B457	Brake Bleeder Wrench

CLS-24400

Cornwell Disc Brake Pad Spreader

- Designed for installing pads on most domestic and import cars and light trucks.
- Compresses disc brake piston for easy pad installation.



OW-7034

Disc Brake Pad Spreader

- Fits between the two new pads being installed and expands to retract the piston.
- Frees hand to start the caliper over the rotor.
- Works on all standard and four-piston caliper disc brakes.



TH-457

Brake Adjuster Release Tools

- Hardened steel tools fit most domestic and imports with drum brakes.
- Allows technician to back off adjuster, permitting brake shoes to retract.
- Specially designed tip holds actuator arm away from star wheel on adjuster so wheel can be turned with a brake spoon.
- Simple and sturdy, eliminate improvised solutions that cause more problems than they solve.
- Includes two (2) tools, one for cars and the other for light trucks.



LS-49900

GM Single Spring Brake Tool

- Spring tension must be released to disassemble the brake to replace brake shoes, emergency brake cable, or service the brake cylinder.
- Releases tension on large GM single brake springs for servicing.
- Engages the single brake spring and releases the spring tension.
- Holds spring in open position so both hands are free to service the brake.
- Applications: 1991 to current GM H body: Pontiac Bonneville, Buick LeSabre, and Olds Delta 88; 1992 to current GM C and U body: Buick Electra, Olds 98, Cadillac DeVille, Cadillac Fleetwood, Chevy Lumina APV, Pontiac Trans Sport, and Olds Silhouette; 1995 to current: Chevy Lumina and Chevy Monte Carlo.



LS-44800

Heavy Duty Brake Spring Tool

- Removes and installs larger brake return springs.
- Works on brakes with or without an anchor pin.
- Engage brake spring in tool head. Turn rear handle to lock on spring.
- Expand spring to install or remove.
- Front handle can be removed when working in tight places.



LS-18800

Brake Cylinder Retainer Remover

- For GM "X" and "J" body cars.
- Expands and holds this special retainer so brake cylinder may be removed.
- Insert tool tips in retainer ring and expand by turning the knob.
- Replace by reversing the procedure.



LS-18920 Replacement tips (pr.)

OW-7499

Ford Disc Brake Caliper Pin Remover Tool

- Removes brake caliper pin without damage.
- Eliminates makeshift methods.
- Fits 1989 through current Ranger, Aerostar, E-Series, F-Series and Bronco, 1989-1991 Bronco II, and 1991 through current Explorer.



OW-7299

Ford Brake Caliper Pin Remover

- Removes brake caliper pins on 1986-88 Aerostars, Broncos, and E- and F-series pickups; 1983-88 Rangers; and 1984-88 Bronco IIs without damaging the pin.
- Weight: 7 oz.



LS-48400

Import Car Brake Clip Tool

- Designed for import cars with brake shoe hold-down clips.
- Removes and installs the brake clip and nail on brake shoes in seconds.
- Set tool head in the brake clip groove; push tool to depress brake clip; turn handle 1/4 turn to disengage clip from nail.



OF-1045

Brake Spring Tool

- Use special socket for removing return spring and the other end for replacing spring on late model Bendix brake systems.
- Bright lustre plate.



WARNING!

Wear safety goggles when using brake tools & equipment. Always use caution and proper safety practices. Read operating instructions thoroughly.

KD-2773

Brake Shoe Retaining Spring Tool for Compacts

- Remove and install retaining springs 5/8" to 11/16" in diameter on small car drum brakes.
- Small socket fits into tight places.
- Special socket grips retainer washer.
- Push and turn to remove or install.



OF-1044

Brake Shoe Retaining Spring Tool

- Remove and replace dish type washers.
- Knurled cup securely grips washer on both small and full size cars.
- Sturdy, fluted plastic handle.
- Contrasting black oxide and bright lustre plate finish.



CLS-45100

Cornwell Brake Spring Tool

- Designed for import car brake return springs.
- Removes and installs import brake return springs.
- Also works on domestic brakes that don't use an anchor pin.
- Engage brake spring in tool head, turn handle to lock on spring, and expand spring to install or remove.



KD-3499

Truck Brake Retaining Spring Tool

- Removes and installs brake retaining spring on medium duty (3/4 & 1 ton) trucks with Bendix drum brakes.
- Innovative design improves access around emergency brake lever.
- Applications: '88-'97 Ford Super Duty, '67-'97 Ford F-250, F350, E200, E250, and E350. '81-93 Dodge D300 and D350, '75-'93 Dodge W300 and W350, '70-'93 Dodge B300 and B350, and '74-'84 Dodge 400 and 500 Series.



VM-B10

Truck Brake Shoe Retainer Spring Tool

- Designed to remove and replace the brake shoe retainer spring on trucks.
- Provides good leverage to engage or disengage the hook arm of the spring.
- Offset handle keeps clear of brake.
- Length: 7".

Works on:

Ford Trucks	F250, F350, P250, P350, P400
Dodge Trucks	B300, D300, P300, D200, P200
International Trucks	Series 1200 and 1300



Bendix Brake Spring Tools



- Have a stainless steel clip that holds spring and washer in tool for easier removal/replacement of brake shoes.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
VM-B97	Small 5/8"	VM-B98	Large 3/4"

ML-2BR

2 Piece Brake "C" Ring Remover and Installer Tool Set

- For installing/removing "C" retaining ring on emergency brake actuation lever.

Set consists of the following:

PART NO.	DESCRIPTION
ML-32BR	Brake "C" Ring Removal Tool
ML-33BR	Brake "C" Ring Installer & Utility Plier



ML-32BR

Brake "C" Ring Removal Tool

- For removing the "C" rings. • Position short leg on top face of ring, position "wedge" between legs of ring and squeeze handles, pushing ring off post, tilt ring and remove.



OF-1040

Bendix Brake Spring Plier

- Removes and installs brake springs on a majority of cars and trucks. • Special socket for Bendix brakes. • Narrow points for in-line pull on springs. • 12" long. • Bright lustre plate.



OF-1041

Truck Brake Spring Plier

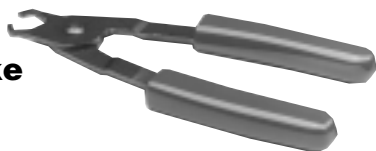
- Removes and installs brake springs. • Forged from alloy steel and heat-treated for long wear. • Narrow points for in-line pull on springs. • 19" long. • Bright lustre plate.



TH-450

Emergency Brake Cable Housing Pliers

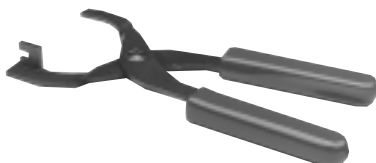
- Used on domestic and import vehicles that utilize an emergency brake cable at the rear wheels, including drum brake applications and some rear disc brake vehicles. • Used to remove emergency brake cable housing from backing plate. • Hardened steel construction. • Soft touch handle grips.



TH-451

Emergency Brake Cable Removal Tool

- Used on domestic and import vehicles that utilize an emergency brake cable at the rear wheels with cable connector under the vehicle, including drum brake applications and most rear disc brake vehicles. • Place brake cable in slot of pliers and use blade of pliers to push the cable out of the cable connector. • Hardened steel construction for durability. • Soft touch handle grips.



TH-365

Emergency Brake Tool

- Compresses the spring on the emergency brake cable for replacing the brake shoe arm. • Fits all vehicles using a cable/spring emergency brake assembly. • Eliminates pinched fingers. • Frees one hand for replacing brake shoe lever.



LS-40800

Parking Brake Cable Remover

- Double ended tool removes parking brake cables from the brake backing plate and chassis mounting bracket. • Cylindrical tool ends compress the prongs on the spring fastener for easy disassembly. • Tool can be used with one hand so other hand can pull the cable. • Use the smaller end for Ford Escort, Topaz and Tempo, use the larger end for other vehicles.



Natural Rubber Silencers

- "AMMCO-type" silencer made of high quality rubber and neoprene; reduces and suppresses chatter. • For use on all drums and/or rotors while turning.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SB-69	Rotor Silencer	SB-80B	Drum Silencer

SB-062-10

Carbide Cutting Bits

- "AMMCO-type" bits made of high quality grade of carbide and guaranteed to perform up to OEM standards. • Complete with screws.



SB-407-10

Carbide Cutting Bits

- "FMC-type" bits made of high quality grade of carbide and guaranteed to perform up to OEM standards. • Complete with screws.



SB-83B

Silencer Pads

- "AMMCO-type".



CF-64

Brake Hone (Foreign Cars)

- Adjustable tension hone for 12.7MM (1/2") to 57MM (2-1/4") diameter cylinders. • Self-aligning and self-centering.

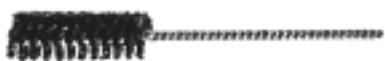
- CF-64-1 Replacement Stone Set, Medium Grit
- CF-64-14 Replacement Stone Set, Fine Grit



THE FLEX-HONE® TOOL

The FLEX-HONE® Tool is a resilient, flexible hone tool with a soft cutting action. The tool is made from 95% pure raw grain abrasive laminated onto flexible nylon filaments. Each tool is self-centering, self-aligning to the bore and self-compensating for wear. It removes peaks from the surface as well as cut, torn, and folded metal left by previous machining operations. The FLEX-HONE® can develop a plateau of over 60 percent while producing an oil holding cross hatch pattern with the required AA. The FLEX-HONE® Tool is available in a wide variety of abrasive types, grit sizes, bore diameters and can be customized to meet a particular requirement. **(NOTE: Not available for export.)**

Brake Cylinder FLEX-HONES®

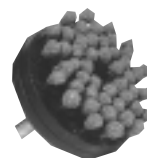


- 180 Grit, silicone carbide abrasive. • 8" O.A. length.

PART NO.	SIZE	PART NO.	SIZE
BR-BC14MM	.552"	BR-BC7/8	22MM
BR-BC18MM	.709"	BR-BC1	25.4MM
BR-BC20MM	.787"	BR-BC1-1/8	29MM

BR-RMFH120Z25

Medium FLEX-HONE® for Rotors



- Produce the ideal surface finish on disc brake rotors and flywheels. • Last longer than abrasive pads. • Produce a non-directional pattern. • Lowers harmonic vibrations. • Ideal for new or re-turned rotors and flywheels. • Secure in a collet, chuck or similar holding device.

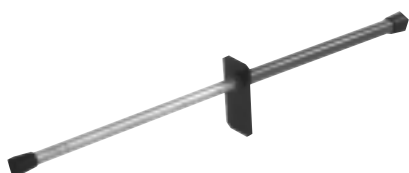


WARNING!

Wear safety goggles when using such tools as punches, chisels, hammers, power impact tool and cutting tools. Operate Flex-Hones® only while hone is within cylinder. Read operating instructions thoroughly.

VM-V386

Pedal Press



- Holds brake or clutch pedal in any desired position. • Spring loaded column will follow brake pedal during bleeding operation. • Allows one person to do jobs normally requiring two! • Length: 29", compresses to 24". • **WARNING: Do not use on accelerator pedal!**

TH-393

Universal Throttle Pedal Depressor



- Attaches to steering wheel and depresses throttle. • Quickly adjusts RPM to desired setting. • Saves time on air conditioning work, fuel injection cleaning, cylinder balance tests, tune-ups, etc.

MCL-71475

Master Flaring Kit



- Universal hydraulic flaring tool set. • Fabricates Push Connect Flare, 1/4", 5/16", and 3/8"; GM Fuel Line Flare 5/16" and 3/8"; Flare/Double Flare 3/16", 1/4", 5/16", 3/8", and 1/2", and Metric Bubble Flaring 4.75mm, 6mm, 8mm, and 10mm placed in a custom molded box.

**For our complete
line of
Safety
Equipment,
refer to Index**



Undercarriage
& Wheel

MCL-71200

Push Connect Flaring Tool Set



- Fabricates push-connect flares found on transmission cooler, fuel and some brake lines. • "Hydra-Flare" hand-operated hydraulic ram generates power necessary to produce proper fitting ends. • Will make 5/16" and 3/8" tube ends.

Includes the following in a custom carrying case:

PART NO.	DESCRIPTION
MCL-71201	"Hydra-Flare" assembly
MCL-71205	5/16" adapter
MCL-71206	3/8" adapter
MCL-71215	5/16" die set
MCL-71216	3/8" die set

PU-FT6

Double Flaring Tool Set

- For fast efficient single or double 45° flaring of tubing. • Comes with hardened bar assembly and five threaded adaptors. • Packaged in durable polypropylene box.



Set consists of the following:

PART NO.	DESCRIPTION
PU-FT6-1	3/16" Adaptor
PU-FT6-2	1/4" Adaptor
PU-FT6-3	5/16" Adaptor
PU-FT6-4	3/8" Adaptor
PU-FT6-5	1/2" Adaptor
PU-FT6-6	Bar Assembly
PU-FT6-7	Yoke Assembly for PU-FT6 & PU-165

PU-165

Metric Double Flaring Tool Set

- Double flaring tool designed for metric size tubing. • Withstands pressure necessary to double flare tubing up to 1MM wall thickness. • Can be used as single flaring tool. • Packaged in durable polypropylene box.



Set consists of the following:

PART NO.	DESCRIPTION
PU-165-1	4.75MM Adaptor
PU-165-2	5MM Adaptor
PU-165-3	6MM Adaptor
PU-165-4	8MM Adaptor
PU-165-5	10MM Adaptor
PU-165-6	Bar Assembly
PU-FT6-7	Yoke Assembly for PU-FT6 & PU-165

PU-168

Tubing Tool Set

- Includes double flaring tool built to withstand the pressure necessary to double-flare soft steel tubing (.040 wall). • Also produces a single flare. • Alloy steel swivel is heat treated, ground and chromed to reduce friction. • Comes with five adaptors: 3/16", 1/4", 5/16", 3/8" and 1/2". • Includes copper tubing cutter with a 1/8" to 1-1/8" O.D. capacity. • Packaged in a rugged polypropylene co-polymer case.



TC-1000

HI-DUTY® Tube Cutter

- Rollers have flare cut-off groove, fold away reamer and spare cutting wheel. • For 1/8" to 1-1/8" (4 to 28mm) O.D. tubing, (1/8" to 1" nom.). • Length: 4-15/16". • Weight: 6-1/2 oz.



TC-75015 Repl. Cutting Wheel

IM-RC375

RATCH-CUT® Tube Cutter



- Small, lightweight, rugged professional tool designed for use in tight places. • Cuts from 1/8" to 3/8" (3mm to 9.5mm). • Cuts copper, thin mild steel, aluminum, PVC plastic, brass and stainless steel tubing. • Constructed of fiberglass and designed for lifetime rigorous service. • Ideal for many applications such as: heating, plumbing, air conditioning, automotive, irrigation, marine, aviation, and general industry.

IM-RC375-7C Repl. Cutting Wheels (2)

TC-1050

IMP® Tube Cutter



- Repositioned rollers to bottom of tool allow for easier cutter engagement on tubing. • Enclosed feed-screw minimizes contamination, assuring continued free operation. • Requires only 1-1/4" swing radius. (Requires only 1-3/8" swing radius with 5/8" tube.) • For 1/8" to 5/8" (4 to 15mm) O.D. tubing, (1/8" to 1/2" nom.). • Size: 1-3/4" x 1-1/4" x 1/2" • Weight: 2-1/2 oz.

TC-32633 Repl. Cutting Wheel

RA-18548

Tube Bender



- Bends soft or annealed tubing without crimping, flattening or scratching. • Bends four sizes: 3/16", 1/4", 5/16" and 3/8" tubing. • Handles are 8-1/2" long so extensions are not needed. • Calibration allows duplication of any angle. • Glass/plastic construction combines strength with lightweight durability.

LS-34400

Exhaust/Tailpipe Stretcher

- Stretches all types of exhaust pipe including stainless steel. • Use impact wrench to stretch pipes for connection. • Two collet sets fit pipes from 1-5/8" to 2-7/16". • Can be used on the car. • Convenient alternative to hydraulic pipe expanders.



LS-17500

Tailpipe Stretcher Extender for LS-34400



- Five extenders fit over the **LS-34400** Exhaust/Tailpipe Stretcher to create a larger range of operation up to 4-1/4". • Made from a strong, yet lightweight, aluminum alloy.

Set includes:

PART NO.	NUMBER	RANGE
LS-17510	#1	2-3/8" - 2-3/4"
LS-17520	#2	2-3/4" - 3-1/8"
LS-17530	#3	3-1/8" - 3-1/2"
LS-17540	#4	3-1/2" - 3-7/8"
LS-17550	#5	3-7/8" - 4-1/4"

WH-PE69

Pipe Expander



- Designed to flare, shape and expand both small and large diameter exhaust pipes and tailpipes, ranging in size from 1-3/4" to 2-3/4".
- A light coat of lubrication is recommended for ease of operation.

Tailpipe Expanders



- Remove clamp grooves and round out pipes.
- Step design gives big range.

PART NO.	DESCRIPTION
LS-32500	1-5/8" to 2-7/16" (41.3 to 61.9mm)
LS-32750	2-3/8" to 3-1/4" (60.3 to 82.5mm)

LS-32030 "O" Ring Kit/LS-32500

LS-32740 "O" Ring Kit/LS-32750

LS-13000

Exhaust Manifold Spreader



- For reinstalling the manifold on small block Chevrolets.
- Expand a warped manifold so all bolt holes are accurately aligned.
- Helps prevent cross-threading of manifold bolts.
- Works best when used in pairs, or install before removing manifold to prevent misalignment.

PU-NC12

Nut Splitting Tool



- For removal of rusted or corroded nuts.
- Small, compact tool splits nuts up to 1/2" automotive series or any nut 3/4" across flats.
- Length: 4-3/4".
- Angle of body gets to hard-to-reach places.
- Especially handy for front and rear shock absorber stud-end nuts.
- Made of high grade heat-treated steel.

PU-NC12-2 Screw Assembly

PU-NC12-3 Cutter

LS-32100

Exhaust "Donut" Stretcher



- Removes and installs rubber mounting ring style hangers found on many import cars.
- Place the hook of the tool through the rubber mounting ring.
- Pull or push to stretch until ring can be removed from the hook on muffler, pipe or frame.
- Reverse procedure to install.

LS-31500

Exhaust/Strut Cutoff Tool



- Cuts out-of-round pipes.
- Four knife-edged cutting wheels cut quickly and cleanly.
- Range: 1-3/8" to 2-1/2" (34.9 to 63.5mm)
- Quickly cuts factory welded struts so they can be rebuilt.

LS-31530 Repl. Cutting Wheels (4)

KD-2031

Exhaust and Tailpipe Cutter



- Cuts pipes 3/4" to 3" (19mm to 76mm) in diameter.
- 15 blades cut pipes so only a 100° rotation is needed to complete cut.
- Plastisol dipped handle.
- Works in hard to reach areas.
- Keep well oiled.
- Will not cut double-wall pipe.

LS-32000

Pipe End Shaper



- Rounds out exhaust pipes that are crushed or bent.
- Reshapes pipes bent or flared out by placing big end over pipe.
- Range: 1-1/2" to 3-5/8" (38.1 - 92mm).

WN-BPT-01

Exhaust Back Pressure Tester



- Allows the monitoring of the exhaust back pressure.
- Test Catalytic Converters by screwing the multiplex adapter into Oxygen Sensor Port.
- One adapter fits all standard Oxygen Sensor Ports, no need to change adapters.
- Diagnose restricted exhaust systems.
- 3 foot hose allows monitoring from inside vehicle or from under the hood.
- Checks vehicle under load, with and without EGR valves.
- Comes in blow-molded storage case with complete instructions.
- More reliable than conventional exhaust testers because there is no need to tap into exhaust system and then plug holes afterward.

VM-V620

GM Seat Rail Socket



- This tool is designed to fit in the seat track and remove the special nut that retains the seat track on 2000 GM pick-ups.
- 3/8" sq. drive.

A collection of various power tools including impact drivers, wrenches, blowers, and a compressor. The tools are arranged in two columns, separated by a vertical line. The left column features a black impact driver, a blue impact driver, a blue wrench, a blue and silver wrench, a blue and red blower, and a black air compressor. The right column features a black impact driver, a blue impact driver, a black case, a blue wrench, a blue and silver wrench, a blue and silver blower, and a blue and silver blower. The background is a gradient of yellow and green.



The Choice of Professionals®
- Since 1919 -

STC-C352

Cornwell 1/4" Impact Wrench

- Through the handle exhaust which directs the exhaust away from the operator.
- Powerful and durable twin hammer, double blow, impact clutch.
- Spring steel impact clutch housing.
- Force feed lubrication for impact clutch.
- Built-in variable speed and power regulator.



SPECIFICATIONS

Working Torque Range	40 ft.-lbs.
Capacity (Std. Bolt Size)	1/4"
Net Weight	1-7/8 lbs.
Length	4-7/8"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"
Free Speed	13,000 RPM
Air Pressure	90 PSI

CP-719

1/4" Air Impact Wrench

- Durable clutch mechanism with oil lubrication.
- Contoured elastomer handle grip.
- Handle exhaust and plunger type reverse valve.
- Ultimate Torque: 30 ft.-lbs.



SPECIFICATIONS

Working Torque Range	5-20 ft.-lbs.
Capacity (Std. Bolt Size)	1/4"
Net Weight	2-1/2 lbs.
Length	4-1/2"
Air Consumption	2 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CP-C724H

Cornwell 3/8" Extra Heavy Duty Air Impact Wrench

- Differential regulator and oil bath Dyna-Pact™ clutch delivers higher performance and extended durability.
- Handle exhaust directs air away from the workpiece and operator.
- Exhaust deflector diffuses air at a 45° angle.
- Integral 360° air inlet swivel.
- Teasing throttle design.
- Extended handle for greater balance and feel.
- Rubber scuff guard protects tool.



SPECIFICATIONS

Working Torque Range	40-170 ft.-lbs.
Maximum Torque	200 ft.-lbs.
Capacity (Std Bolt Size)	1/2"
Net Weight	3.1 lbs.
Length	6"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Air Hose	3/8"

STC-C351

Cornwell 3/8" Impact Wrench

- Through the handle exhaust which directs the exhaust away from the operator.
- Powerful and durable twin hammer, double blow, impact clutch.
- Spring steel impact clutch housing.
- Force feed lubrication for impact clutch.
- Built-in variable speed and power regulator.



SPECIFICATIONS

No Load Speed	0-2,300 RPM
Working Torque Range	20-150 ft.-lbs.
Maximum Torque	180 ft.-lbs.
Capacity (Std. Bolt Size)	3/8"
Net Weight	2.97 lbs.
Length	5-1/2"
Air Consumption	2.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"
Free Speed	10,000 RPM
Air Pressure	90 PSI

IR-C2112

Cornwell 3/8" Ultra Duty Air Impact Wrench

- Super tough composite housing and steel hammer case.
- Four level power management system for higher speed thru range.
- Bias motor design for 260 ft.-lbs. maximum torque in reverse.
- Push button forward/reverse.
- Handle exhaust directs air away.
- Professional touch trigger and integral 360° swivel inlet.
- Free Speed: 14,500 rpm; 1,500 Blows/Min.



SPECIFICATIONS

Working Torque Range	25-200 ft.-lbs.
Maximum Torque (Forward)	230 ft.-lbs.
Maximum Torque (Reverse)	260 ft.-lbs.
Capacity (Std. Bolt Size)	7/16"
Net Weight	2.65 lbs.
Overall Length	5.625"
Air Consumption	4 CFM

PR-C2112 Tri-Color Air Tool Cover

IR-216

3/8" Super Duty In-Line Air Impact Wrench

- Palm-grip wrench.
- Ideal for work in small spaces such as small engine repair and general service work.
- Contoured composite butterfly throttle for speed adjustment in either direction in one continuous motion.
- Compact and durable in-line housing.
- 180° swivel inlet.
- 1,800 Blows per minute.
- Free Speed: 8,000 RPM.



SPECIFICATIONS

Working Torque Range	15-160 ft.-lbs.
Maximum Torque	175 ft.-lbs.
Capacity (Std. Bolt Size)	7/16"
Net Weight	2.89 lbs.
Length	6.125"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-212

3/8" Super Duty Air Impact Wrench

- For exhaust systems, air conditioning, radiators, body shop, and bench work.
- Single Hammer Impact Mechanism for removing/replacing bolts up to 7/16".
- Pistol-style grip, compact and lightweight.
- Built-in power regulator prevents over-torquing.
- Handle exhaust.
- Free Speed: 10,000 RPM; 1,500 Blows/Min.



SPECIFICATIONS

Working Torque Range	20-150 ft.-lbs.
Maximum Torque	180 ft.-lbs.
Capacity (Std. Bolt Size)	7/16"
Net Weight	2.89 lbs.
Length	6"
Air Consumption	2.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-105-LBK1 Air Tool Care Kit

IR-C232A

Cornwell 1/2" Heavy Duty Air Impact Wrench

- Twin hammer impact mechanism for consistent, dependable performance.
- Speed: 9,000 rpm @ 90 PSI; 10,000 rpm @ 100 PSI.
- Durable steel hammer case.
- Built-in power regulator controls or reduces power.
- Built-in lubrication system.
- Protective rubber housing and hammer case bumpers.
- Handle exhaust directs exhaust away from the operator.



SPECIFICATIONS

Working Torque Range	40-350 ft.-lbs.
Maximum Torque @ 90 PSI	625 ft.-lbs.
Capacity (Std. Bolt Size)	5/8"
Net Weight	5-3/4 lbs.
Length	7-5/8"
Air Consumption	4.2 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

STC-C350

Cornwell 1/2" Air Impact Wrench

- Designed for frame repair & rebuild, suspension repair, professional tire shops, small truck repairs, construction equipment and farm equipment.
- Steel front hammer housing, comfort grip handle and single handed forward/reverse plunger.
- Teasing trigger for speed control.
- Excellent power to weight output ratio.
- High power durable double blow clutch.
- Speed: 7,000 RPM.



SPECIFICATIONS

Working Torque Range	25-300 ft.-lbs.
Maximum Torque	425 ft.-lbs.
Capacity (Std. Bolt Size)	5/8"
Net Weight	5.6 lbs.
Length	6.75"
Air Consumption	5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CP-C749

Cornwell 1/2" Super Duty Air Impact Wrench

- Oil bath "Spring Hammer" clutch for ultimate power, high durability, and reduced vibration.
- Differential regulator with four positive power settings in forward and ultimate power in reverse.
- Contoured elastomer handle grip.
- Ultimate Torque @ 90 PSI Reverse: 625 ft.-lbs.



SPECIFICATIONS

Working Torque Range	50-450 ft.-lbs.
Maximum Torque (Forward)	500 ft.-lbs.
Capacity (Std Bolt Size)	5/8"
Net Weight	5-1/4 lbs.
Length	7"
Air Consumption	5-1/2 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CP-C749-2

Cornwell 1/2" Impact Wrench with 2" Extended Anvil

- Oil bath "Spring Hammer" clutch mechanism for ultimate power, high durability, and reduced vibration.
- Differential regulator with four positive power settings in forward and ultimate power in reverse.
- 2" Extended anvil for tire work.
- Ultimate Torque @ 90 PSI Reverse: 625 ft.-lbs.
- Includes a blue air tool cover.



SPECIFICATIONS

Working Torque Range	50-450 ft.-lbs.
Maximum Torque (Forward)	500 ft.-lbs.
Net Weight	5-1/2 lbs.
Length	9"
Air Consumption	5-1/2 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-C2131A

Cornwell 1/2" Ultra Duty Air Impact Wrench

- Lightweight construction, even balance and compact profile.
- Twin Hammer Plus impact mechanism.
- Push button forward/reverse.
- 360° swivel inlet and handle exhaust.
- Professional touch trigger.
- Super strong composite housing with steel hammer case.
- 1,250 Blows/Min.
- Free Speed: 9,500 RPM.
- 600 ft.-lbs. working torque in reverse.



SPECIFICATIONS

Working Torque Range	50-400 ft.-lbs.
Maximum Torque (forward)	450 ft.-lbs.
Capacity (Std. Bolt Size)	9/16"
Net Weight	4.5 lbs.
Length	7.1"
Air Consumption	4.8 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

PR-C2131A Tri-Color Air Tool Cover

IR-2131-P32 Boot

CP-7750

1/2" Turbo™ Air Impact Wrench

- For heavy duty repair jobs on trucks, buses, off-road equipment, SUV's, pick up trucks. • Patented Turbo™ high performance motor system. • Single control dial for regulator and directional control. • Composite housing and aluminum clutch housing and back cap. • Oil bath clutch. • Patented spring hammer clutch system. • Soft overmolded handle. • Handle exhaust direct air away from work area. • Speeds: 2 Forward, 2 Reverse. • 1,580 Blows/Min.



SPECIFICATIONS

Working Torque Range	50-550 ft.-lbs.
Maximum Torque (Fwd/Rev) @ 90 PSI	600/800 ft.-lbs.
Capacity (Std. Bolt Size)	5/8"
Net Weight	5 lbs.
Length	7.6"
Air Consumption	5.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CP-7750-2

1/2" Turbo™ Air Impact Wrench with Extended Anvil

- For heavy duty repair jobs on trucks, buses, off-road equipment, SUV's, pick up trucks. • Patented Turbo™ high performance motor system. • 2" extended anvil. • Single control dial for regulator and directional control. • Composite housing and aluminum clutch housing and back cap. • Oil bath clutch. • Patented spring hammer clutch system. • Soft overmolded handle. • Handle exhaust direct air away from work area. • Speeds: 2 Forward, 2 Reverse. • 1,580 Blows/Min.



SPECIFICATIONS

Working Torque Range	50-550 ft.-lbs.
Maximum Torque (Fwd/Rev) @ 90 PSI	600/800 ft.-lbs.
Capacity (Std. Bolt Size)	5/8"
Net Weight	5.1 lbs.
Length	9.6"
Air Consumption	5.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-2135Ti

1/2" Titanium 'N' Torque Impact Wrench

- Made with titanium for light weight, greater durability. • Enhanced Twin Hammer impact mechanism for fast removal of frozen bolts. • Professional touch trigger for ultimate power control. • Ergonomic handle design for comfort and improved grip. • 7-vane motor delivers 1,000 ft.-lbs. of Nut Busting Torque to loosen a nut tightened to 1,000 ft.-lbs in 6 seconds. • Four-position power management control. • Push-button forward/reverse controls for one-handed operation. • Through-handle exhaust; 360° swivel inlet.



SPECIFICATIONS

Working Torque Range	50-600 ft.-lbs.
Maximum Torque (forward/reverse)	625/700 ft.-lbs.
Capacity (Std. Bolt Size)	9/16"
Net Weight	3.95 lbs.
Length	7.34"
Air Consumption	5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-2135-P32 Boot

IR-244A

1/2" Super Duty Air Impact Wrench

- For tire changing, shock and spring work, front end work, and other heavy automotive and truck work. • Twin hammer impact mechanism. • Powerful; smooth, balanced blows. • Excellent balance and variable speed trigger for power control. • Pressure Feed Lubrication System automatically greases the impact mechanism. • 1,300 Blows/Min. • Free Speed: 7,000 RPM.



SPECIFICATIONS

Working Torque Range	40-350 ft.-lbs.
Maximum Torque	500 ft.-lbs.
Capacity (Std. Bolt Size)	5/8"
Net Weight	6 lbs.
Length	7.3"
Air Consumption	5.4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-105-LBK1 Air Tool Care Kit

IR-244-P32 Boot

IR-2131QT

1/2" Ultra Quiet Air Impact Wrench

- Features patented TwinHammer Plus™ impact mechanism and patented silencing technology - reduces sound by 50%! • Exceptional control with professional touch trigger. • One-hand push button forward/reverse. • Super strong composite housing with steel hammer case. • 360° swivel inlet and handle exhaust.



SPECIFICATIONS

Working Torque Range	50-400 ft.-lbs.
Maximum Torque (Reversed bias)	600 ft.-lbs.
Blows per Minute	1,250
Free Speed	9,500 RPM
Standard Bolt Cap	9/16"
Weight	4.5 lbs.
Overall Length	7.1"
Average Air Consumption	4.8 CFM
Air Inlet	1/4"
Minimum Hose Size	3/8"

IR-2121

1/2" Ultra Duty Air Impact Wrench

- Super tough lightweight composite housing and steel hammer case. • Four-position power management system - maintain higher speed through full torque range. • Reverse bias motor design. • Patented twin hammer mechanism with only four moving parts. • One-hand push button forward/reverse. • In-handle exhaust directs air away at a 45° angle. • Touch trigger and integral 360° swivel inlet. • Blows per minute: 1,500. • Free Speed: 14,500 rpm.



SPECIFICATIONS

Working Torque Range	25-200 ft.-lbs.
Maximum Torque (Forward)	230 ft.-lbs.
Maximum Torque (Reverse)	260 ft.-lbs.
Capacity (Std. Bolt Size)	7/16"
Net Weight	2.65 lbs.
Length	5.625"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-261

3/4" Super Duty Air Impact Wrench

- For spring work, pinion nut and track pad removal, engine teardowns.
- Jumbo hammer mechanism and Pressure-Feed Lube system.
- Handle exhaust.
- 1,000 Blows/Min..
- Free Speed: 5,500 RPM.



SPECIFICATIONS

Working Torque Range	200-900 ft.-lbs.
Maximum Torque	1,100 ft.-lbs.
Capacity (Std. Bolt Size)	1"
Net Weight	12.4 lbs.
Length	8.8"
Air Consumption	9.5 CFM
Air Inlet (NPT)	3/8"
Minimum Hose Size	1/2"

IR-105-LBK1 Air Tool Care Kit

IR-2141

3/4" Ultra Duty Air Impact Wrench

- Power for productivity.
- Small and lightweight.
- Delivers great power-to-weight ratio.
- Contoured professional tough trigger and ergonomically designed handle for increased comfort.
- Great maneuverability for tight, awkward spaces.
- Twinhammer Plus™ Mechanism.
- Free Speed: 7,250 rpm.
- Blows per minute: 1,175.



SPECIFICATIONS

Working Torque Range	200-900 ft.-lbs.
Maximum Torque	1,200 ft.-lbs.
Capacity (Std. Bolt Size)	1"
Net Weight	7 lbs.
Length	8.2"
Air Consumption	9.5 CFM
Air Inlet (NPT)	3/8"
Minimum Hose Size	1/2"

IR-2080-6

1" Ultra Duty Air Impact Wrench with 6" Anvil

- Ergonomically designed handle and grip allow better control, as well as a natural wrist and body position that eliminates back-bending contortions.
- Revolutionary tire change handle designed specifically for high volume fleet service.
- Features improved anvil, bushing and exhaust design.
- 950 Blows per minute.
- Free Speed: 6,800 RPM.



SPECIFICATIONS

Working Torque Range	150-1200 ft.-lbs.
Maximum Torque	1,600 ft.-lbs.
Capacity (Std. Bolt Size)	1-1/4"
Net Weight	16 lbs.
Length	21.48"
Air Consumption	12 CFM
Air Inlet (NPT)	1/2"
Minimum Hose Size	1/2"

MK-6907DWE

3/8" 9.6V Cordless Impact Wrench

- Variable speed for controlled driving.
- Efficient impact system for faster, more powerful fastening.
- Angled grip design for balance.
- Electric brake.
- Convenient reversing switch.
- Includes: charger, battery cover, two batteries, and plastic tool case.



SPECIFICATIONS

No Load Speed	0 - 2,000 RPM
Impacts Per Minute	0 - 2,600
Maximum Torque	600 in./lbs.
Battery	9.6VDC
Overall Length	7-5/16"
Net Weight (with battery)	2.9 lbs.
Shipping Weight	8.5 lbs.

MK-192019-4 9.6V Battery



CAT-250AR

Cornwell 1/4" Super Duty Air Ratchet

- Strengthened feather throttle for better speed control.
- Specially forged and heat treated chrome Molly alloy steel ratchet yoke for optimum performance and yoke spreading resistance.
- Proper yoke and ratchet alignment is maintained by precision machining of components.
- Soft touch housing cover.
- Rear exhaust with unique muffler keeps air flow away from work area.
- Special rotor blades have self-lubricating properties.
- Maximum Free Speed: 240 rpm. Recommended Air Pressure: 90 psi.

SPECIFICATIONS

Working Torque Range	5-18 ft./lbs.
Ultimate Torque by Hand	30 ft.-lbs.
Capacity (Std. Bolt Size)	1/4"
Net Weight	1.4 lbs.
Length	7.25"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"



CP-C826

Cornwell 1/4" Air Ratchet

- Designed for under-dash-board work, small engine, and body shop repairs.
- Faster rundown with 250 RPM.
- Head design reduces premature wear and eliminates slips.
- Urethane grip offers unmatched comfort and a non-slip feel.
- Extended length for greater reach in confined areas.
- Protective head cover included.

SPECIFICATIONS

Working Torque Range	5-15 ft./lbs.
Ultimate Torque by Hand	30 ft.-lbs.
Capacity (Std. Bolt Size)	1/4"
Net Weight	1-1/8 lbs.
Length	8"
Air Consumption	3-1/2 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"

CP-C826RK Ratchet Head Repair Kit



IR-C103

Cornwell 1/4" Stubby Air Ratchet

- Lightweight and compact.
- For body shop repair jobs and light duty work under the dashboard.

SPECIFICATIONS

Working Torque Range	5-20 ft.-lbs.
Maximum Torque	20 ft.-lbs.
Free Speed	200 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	1.1 lbs.
Length	6.5"
Air Consumption	2.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"



CP-824

1/4" Ratchet

- For use in confined areas such as under-dash work, small engine repair, all small fasteners, etc.
- Compact/lightweight, ideal for confined working conditions.

SPECIFICATIONS

Working Torque Range	5-15 ft.-lbs.
Maximum Torque	30 ft.-lbs.
Free Speed	220 RPM
Capacity (Std. Bolt Size)	1/4"
Net Weight	1.1 lbs.
Length	7.75"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"



IR-1103

1/4" Ultra Duty Air Ratchet Wrench

- Exclusive two speed power grip ring for convenient power output selection.
- Heat treated head design for longer tool life.
- Ergonomic textured grip.
- 360° directionally controlled exhaust prevents unwanted blow-back.
- TwinPawl Plus™ head design ensures full pawl engagement.
- TwinHammer Plus™ impact mechanism.
- Professional lever style throttle for even more control.
- Composite housing keeps the temperature consistent and the noise level low.

SPECIFICATIONS

Working Torque Range	5-25 ft.-lbs.
Maximum Torque	25 ft.-lbs.
Free Speed	270 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	1.75 lbs.
Length	7.5"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"



CP-C7830

Cornwell 3/8" Heavy Duty Air Ratchet

- Aircraft quality aluminum head for light weight, durability and great balance.
- Only weighs 2.7 lbs.
- New Anti-Slip head for durability and improved performance.
- New ergonomic grip for more control and comfort.
- New ratchet head connector nut system allows for quick change of head without any special tools.
- Includes an accessory protective head cover.

SPECIFICATIONS

Working Torque Range	10-90 ft./lbs.
Ultimate Torque	90 ft.-lbs.
Capacity (Std. Bolt Size)	1/2"
Net Weight	2.7 lbs.
Length	12"
Air Consumption	5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"



IR-104

1/4" Standard Duty Air Ratchet

- Fits the palm of your hand; great for small engine repair, headlight service work and bench work.
- Extra compact to reach areas where impact wrenches can't go.
- Easy to maintain.
- Maximum Torque: 20 ft.-lbs.

SPECIFICATIONS

Working Torque Range	5-20 ft.-lbs.
Free Speed	200 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	1.1 lbs.
Length	7.8"
Air Consumption	2.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"

IR-104-TK1 Tune Up Kit



STC-C2000A

Cornwell 3/8" Air Ratchet

- Ergonomic square handle design
- Full 1/2 H.P. motor
- Teasing throttle for precise speed control
- Standard reversing lever
- Easy grip round brass reversing knob
- Steel air inlet to prevent cross-threading for air quick disconnect coupling
- Free Speed: 160 RPM
- Air Pressure: 90 PSI.

SPECIFICATIONS

Maximum Torque	50-60 ft.-lbs.
Maximum Torque by hand	150 ft.-lbs.
Capacity (Std. Bolt Size)	3/8"
Net Weight	2.5 lbs.
Length	10"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"



IR-C107XP

Cornwell 3/8" Extra Performance Heavy Duty Air Ratchet

- Variable speed lever-style throttle.
- 360° adjustable exhaust directs air away from operator and work.
- Delivers an extra measure of durability with an advance head design.

SPECIFICATIONS

Working Torque Range	10-45 ft.-lbs.
Maximum Torque	50 ft.-lbs.
Free Speed	160 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	2.49 lbs.
Length	10.5"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	5/16"

IR-107-TK1 Tune Up Kit



IR-111

3/8" Super Duty Reactionless Air Ratchet

- The Knuckle Saver™ with unique reactionless mechanism makes gearing unnecessary.
- Absorbs kickback when the nut runs tight.
- For work on muffler clamps, shocks, stabilizer pins, bar clamps, water pumps, radiators, spark plug replacement and air conditioning work.
- External grease fitting.
- Maximum Torque: 50 ft.-lbs.
- Rear exhaust directs air away from work.

SPECIFICATIONS

Working Torque Range	10-50 ft.-lbs.
Free Speed	300 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	2.7 lbs.
Length	10.5"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	5/16"



IR-1107

3/8" Ultra Duty Air Ratchet

- Two-speed trigger for ultimate versatility and control.
- Lightweight composite handle with molded palm swell for superior comfort and grip.
- Exclusive TwinPawl Plus™ head design for high speed and durability.

SPECIFICATIONS

Working Torque Range	10-50 ft.-lbs.
Maximum Torque	60 ft.-lbs.
Free Speed	270 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	2.53 lbs.
Length	10.75"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	5/16"



IR-109XP

3/8" Extra Performance Super Duty Air Ratchet

- Durable with optimized gear ratio and airflow for extra performance.
- Exclusive TwinPawl Plus™ head design for exceptional durability.
- 360° adjustable exhaust directs air away from work.

SPECIFICATIONS

Working Torque Range	10-60 ft.-lbs.
Maximum Torque	70 ft.-lbs.
Free Speed	300 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	3.1 lbs.
Length	11.9 in.
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	5/16"



IR-1033

3/8" Stubby Standard Duty Air Ratchet

- Lightweight and compact.
- For body shop repair jobs and light duty work under the dashboard.
- Maximum Torque: 20 ft.-lbs.

SPECIFICATIONS

Working Torque Range	5-20 ft.-lbs.
Free Speed	200 RPM
Capacity (Std. Bolt Size)	3/8"
Net Weight	1.1 lbs.
Length	6.5"
Air Consumption	2.5 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"

CAT-190AH

Cornwell Heavy Duty 190MM Air Hammer with grip

- Ideal for muffler and pipe shops, body shops, rust removal, and light front end work.
- Positive action trigger for total control and feather throttle for greater speed control.
- Built-in air regulator.
- Blue comfort grip on the handle.
- Includes quick change chisel retainer.
- Sound Level: 100 dBA.



SPECIFICATIONS

Blows/Min.	3,200
Shank Diameter	.401"
Bore Diameter	3/4"
Stroke Length	2-5/8"
Air Pressure	90 PSI
Length	9-1/4"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CAT-250AH

Cornwell Heavy Duty 250MM Air Hammer with grip

- Ideal for rivet cutting and bolt cutting and overall front end work.
- Positive action trigger for total control and feather throttle for greater speed control.
- Built-in air regulator.
- Blue comfort grip on the handle.
- Includes quick change chisel retainer.
- Sound Level: 110 dBA.



SPECIFICATIONS

Blows/Min.	2,200
Shank Diameter	.401"
Bore Diameter	3/4"
Stroke Length	3-3/4"
Air Pressure	90 PSI
Length	10-5/8"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-121

Super Duty Air Hammer

- For body panel crimping and cutting, bushing driving, shearing and general front end work.
- Tough one piece alloy barrel.
- Easy to maintain with an "easy out" throttle valve assembly.
- Professional touch trigger.



SPECIFICATIONS

Blows/Min.	3,000
Shank Diameter	.401"
Bore Diameter	3/4"
Stroke Length	2-9/32"
Net Weight	3.5 lbs.
Length	7.63"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-121-K6

Super Duty Air Hammer Kit

- Kit includes air hammer and six (6) air chisels in a custom blow molded storage/ carrying case.
- Use for body panel crimping and cutting, bushing driving, shearing, and general front end work.
- Professional touch trigger keeps power in total control.
- Tough one piece alloy barrel.
- Easy to maintain with an "easy out" throttle valve assembly.



SPECIFICATIONS

Blows/Min.	3,000
Shank Diameter	.401"
Bore Diameter	3/4"
Stroke Length	2-9/32"
Net Weight	3.5 lbs.
Length	7.63"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-121-K5

Replacement Air Chisel Set

- .401 shank diameter.
- Five piece kit includes: edging tool, tail pipe cutter, straight chisel, cutting chisel, and punch in protective plastic pouch.



IR-117

Standard Duty Air Hammer

- Longer piston stroke for exhaust work, bolt cutting and front end work.
- Alloyed steel barrel and heat-treated piston.
- Trigger control and built-in power regulator for speed and power control.



SPECIFICATIONS

Blows/Min.	2,000
Shank Diameter	.401"
Bore Diameter	11/16"
Stroke Length	3-1/2"
Net Weight	4.1 lbs.
Length	9.9"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CP-715

Heavy Duty Zip Gun® Air Hammer

- For rivet and bolt cutting, bushing driving, and overall front end work.
- Longer piston strokes for more force per blow.
- Integral muffler minimizes exhaust sound.



SPECIFICATIONS

Blows/Min.	2,100
Shank Diameter	.401"
Bore Diameter	3/4"
Stroke Length	3-1/2"
Net Weight	4-1/2 lbs.
Length	8-7/8"
Air Consumption	3-1/2 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-311A

Heavy Duty Dual Action Quiet Air Sander

- For feather edging, metal preparation and finish work on body filler.
- Built-in silencer muffles noise.
- Swirl-free finishes from dual action pad motion.
- Vibration-free performance assured by balanced ball bearing construction.
- Adjustable, built-in regulator for positive speed control.



SPECIFICATIONS

Free Speed	10,000 RPM
Pad Diameter	.6"
Spindle	5/16-24 in.
Rated Power	.25 hp
Net Weight	4.2 lbs.
Length	10"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

STC-C600

Cornwell High Performance D/A Sander

- High efficiency motor, steel balancer body and steel spindle lock nut.
- For blending and smoothing of filler, feather edging and pre-paint preparation.
- Built-in speed regulator, variable speed trigger and shielded ball bearing.
- 6" flexible foam sanding pad with vinyl face.



SPECIFICATIONS

Free Speed	10,000 RPM
Pad Diameter	6"
Net Weight	4 lbs.
Length	9"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"

IR-317

Heavy Duty High-Speed Air Sander

- For small jobs and hard-to-reach places requiring light sanding, feather edging and rust removal.
- Easy to handle, compact and lightweight.
- Built-in power regulator.
- Comes complete with three backing pads.



SPECIFICATIONS

Free Speed	18,000 RPM
Pad Diameter	5"
Net Weight	2.3 lbs.
Length	4.4"
Air Consumption	12 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

HU-4560

Random Orbit Super Sander II

- Random orbit action sander for ultra-fine finishes, detailing, feathering and leveling.
- Air efficient motor with Positive-Action drive backed by 4-support bearings powers a unique oversize drive head for full contact sanding.
- Positive air control valve.
- Built-in pad release feature.
- Comes with standard 6" PSA Pad (accommodates 5" and 8" pads also).
- Custom handle available separately.



SPECIFICATIONS

Free Speed	10,000+ RPM
Pad Diameter	6"
Weight	3 lbs. 5 ozs.
Air Consumption	9.8 CFM @ 90 PSI
Noise Emissions	79 dBA

- HU-5136** 6" Standard PSA Repl. Pad
- HU-5108** 8" Standard PSA Repl. Pad

HU-4500

Random Orbit Super Sander

- Random orbit action sander for ultra-fine finishes.
- Flex-cover gives comfortable grip, prevents stiff fingers.
- Low profile, vibration-free motor insures full contact sanding.
- Unique Air Efficiency System.

Positive-Action drive supported by 4-special bearings generates more power on less air.

- Oversize drive head eliminates pad-wobble for full contact sanding.
- Positive air control valve.
- Built-in pad release feature.
- Comes with standard 6" PSA Pad (accommodates 5" and 8" pads also).
- Custom handle available separately.



SPECIFICATIONS

Free Speed	10,000+ RPM
Pad Diameter	6"
Weight	3 lbs. 5 ozs.
Air Consumption	9.8 CFM @ 90 PSI
Noise Emissions	79 dBA

- HU-1839** Accessory Handle
- HU-5136** 6" Standard PSA Repl. Pad
- HU-5108** 8" Standard PSA Repl. Pad

IR-4151

Ultra Duty Vacuum-Ready Random Orbital Sander

- Vacuum-ready, low vibration model produces an ultra-high quality finish.
- Connects easily to central or portable vacuum system.
- Extracts dust and particles through and around the pad keeping foreign matter away from the motor.
- Durable, lightweight composite design weighs less than 2 lbs.



SPECIFICATIONS

Free Speed	12,000 RPM
Rated Power	.2 HP
Pad Diameter	6"
Net Weight	1.92 lbs.
Avg. Air Consumption	8 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	5/16"

- IR-49099-1** Backing Pad

IR-315

Heavy Duty Twin Piston Straight Line Air Sander

- For smoothing body filler or shaping and leveling large flat surfaces.
- Reload easily with quick action paper clamps.
- Two handle design for comfortable operation.



SPECIFICATIONS

Strokes per minute	3,000
Pad Dimensions	2-3/4" x 17-1/2"
Net Weight	6.6 lbs.
Length	17-1/2"
Air Consumption	8 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"



WARNING!

Wear safety goggles when using power tools. Only use air tools for their intended purposes and applications. Avoid prolonged exposure to vibration. Always follow proper maintenance procedures. Read operating instructions thoroughly. Do not use grinding wheels, sanding discs or accessories above their maximum rated RPM. Use proper accessories with adequate speed ratings and correct air pressure.

HU-2000

Hustler Straight Line Air Sander



- Reciprocal action sander. • 2-cylinder sander with vertically-engaged twin gears. • Lack of "rolling gears" common to other straightlines eliminates "humping and jumping" at the end of each reciprocal stroke. • Two in-line cylinders, micro-honed to eliminate cylinder-wall drag, power an oversized high-alloy piston. • Double rack and pinion gear assemblies give twice normal gear contact for maximum balance and thrust.

SPECIFICATIONS

Strokes per minutes	3,000
Pad Dimensions	2-3/4" x 16-1/2"
Net Weight	6 lbs. 4 ozs.
Length	16-1/2"
Air Consumption	6.2 CFM @ 90 PSI
Noise Level:	90 dBA

HU-5003 Standard Repl. Pad

CP-7200S

Mini Orbital Sander Kit



- Feature rubber molded palm grip for added comfort. • Two finger throttle for easier control and less operator fatigue. • Adjustable speed regulator to match speed to the job. • 1/4 Horsepower motor. • Silenced handle exhaust directs air away from work piece. • Small and lightweight for easy access in restricted areas.

- Kit includes the following in a blow molded case:

Mini Orbital Sander with Rubber Grip	2" Sanding Paper, 400 Grit (10)
2" Velcro Sanding Pad	3" Sanding Paper, 320 Grit (10)
3" Velcro Sanding Pad	3" Sanding Paper, 400 Grit (10)
2" Sanding Paper, 320 Grit (10)	3" Sanding Paper, 600 Grit (10)
	Key Wrench

SPECIFICATIONS

Free Speed	15,000 RPM
Pad Diameter	2 & 3"
Net Weight	1.5 lbs.
Length	4.5"
Air Consumption	21 CFM
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"

CP-7201P

Mini Polisher Kit



- Feature rubber molded palm grip for added comfort. • Two finger throttle for easier control and less operator fatigue. • Adjustable speed regulator to match speed to the job. • 1/4 Horsepower motor. • Silenced handle exhaust directs air away from work piece. • Small and lightweight for easy access in restricted areas.

- Kit includes the following in a blow molded case:

Mini Polisher with Rubber Grip	3.5" Yellow Compounding Pad
3" Velcro Pad	3.5" White Compounding Pad
3.5" Buffer	Key Wrench

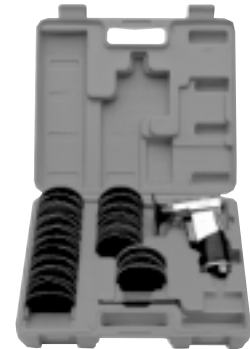
SPECIFICATIONS

Free Speed	2,500 RPM
Pad Diameter	3"
Net Weight	1.75 lbs.
Length	4.5"
Air Consumption	18 CFM
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"

- CP-CA158108** Soft Polishing Pad (white)
- CP-CA158109** Hard Polishing Pad (yellow)
- CP-CA158110** Buffing Pad

CP-7202D

Mini Disc Sander Kit



- Feature rubber molded palm grip for added comfort. • Two finger throttle for easier control and less operator fatigue. • Adjustable speed regulator to match speed to the job. • 1/4 Horsepower motor. • Silenced handle exhaust directs air away from work piece. • Small and lightweight for easy access in restricted areas.

- Kit includes the following in a blow molded case:

Mini Sander with Rubber Grip	3" Sanding Disc, 120 Grit (10)
3" Sanding Pad	3" Surface Prep Pads (3 - fine, medium, coarse)
3" Sanding Disc, 60 Grit (10)	Key Wrench
3" Sanding Disc, 80 Grit (10)	

SPECIFICATIONS

Free Speed	15,000 RPM
Pad Diameter	3"
Net Weight	1.5 lbs.
Length	4.5"
Air Consumption	21 CFM
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"

IR-301

Standard Duty Multi-Purpose Air Angle Die Grinder



- For grinding, edge breaking deburring, porting and polishing. • Compact, lightweight, easy to handle. • Self-locking throttle. • Ball bearing construction and precision machined gearing.

SPECIFICATIONS

Free Speed	20,000 RPM
Rated Power	.25 HP
Collet Size	1/4"
Net Weight	.99 lbs.
Overall Length	5"
Average Air Consumption	3 CFM
Air Inlet	1/4"
Min. Hose Size	3/8"

AS-1205

1/4" Mini Die Grinder

- Composite handle reduces vibration.
- Rib textured handle provides a firm grip.
- Lever throttle for feathering control.
- 1/4" collet.
- 1/3 HP motor.
- Built-in regulator.
- Front exhaust.



SPECIFICATIONS

Free Speed	25,000 RPM
Air Pressure	90-120 PSI
Net Weight	13/16 lbs.
Overall Length	4-3/4"
Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-307A

Standard Duty Mini Air Die Grinder



- Extremely light and compact.
- For porting, weld breaking and smoothing sharp edges.
- Safety lever prevents accidental starts.
- Front exhaust helps keep work surface clean.
- Versatile and reliable.

SPECIFICATIONS

Free Speed	27,000 RPM
Rated Power	.25 HP
Collet Size	1/4"
Net Weight	.69 lbs.
Overall Length	4.75"
Average Air Consumption	3 CFM
Air Inlet	1/4"
Min. Hose Size	3/8"

STC-C550

Cornwell Gearless Die Grinder



- 83° angle; Gearless motor design.
- 1/4" capacity collet design to accept 1/8", 1/4", 3MM, and 6MM shanks; low run-out reduces vibration.
- Light weight aluminum housing; thermal insulated.
- Drop-in-motor, rear exhaust, enhanced muffler system, and hardened steel cylinder.
- Exhaust overhose reduces noise levels; eliminates exhaust from operator/workpiece.
- 3-3/4" low profile.

SPECIFICATIONS

Speed	20,000 RPM
Air Motor	0.3 HP
Sound Level	80 DbA
Air Inlet (NPT)	1/4"
Length	5-1/2"
Weight	1.0 lbs.
Air Consumption	3-5 CFM

STC-C550K

Cornwell Gearless Die Grinder Kit



Kit includes:

PART NO.	DESCRIPTION
STC-C550	1/4" Gearless Die Grinder
STC-1ACQ	1/4" Collet
STC-1ACQ-1	1/8" Collet
STC-1BCQ	1/4" Nipple
STC-1CCQ	11mm & 17mm Spanner Wrenches
STC-2CQ	2" Disc Holder
STC-2ACQ	3" Disc Holder
STC-3CCQ	10 pc. Asst. Grinding Stones
STC-4CCQ	4 pc. Asst. Sanding Drums
STC-5CQ	16 pc. Asst. Sanding Rolls
STC-6CQ	2" Roloc Pad, 40 Grit (5)
STC-7CQ	2" Surface Pads (5)
STC-8CQ	3" Roloc Pad, 40 Grit (5)
STC-9CQ	3" Surface Pads (5)
STC-10ACQ	1/4" Shank
STC-11CQ	Plastic Carrying Case

STC-C510

Cornwell Mini Rear Exhaust Die Grinder



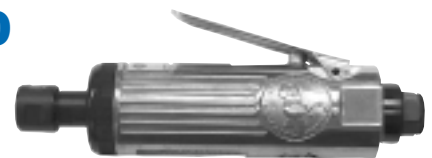
- Features a built-in power regulator, variable speed throttle control and full ball bearing construction.
- Standard with 1/4" collet.

SPECIFICATIONS

Free Speed	25,000 RPM
Motor	1/2 HP
Collet Size	1/4"
Net Weight	14 oz.
Overall Length	5-1/2"
Average Air Consumption	3 CFM
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"

STC-C520

Cornwell Rear Exhaust Die Grinder



- Features a built-in power regulator, variable speed throttle control and full ball bearing construction.
- Standard with 1/4" collet.

SPECIFICATIONS

Free Speed	22,000 RPM
Motor	1/2 HP
Collet Size	1/4"
Net Weight	1 lb.
Overall Length	6"
Average Air Consumption	4-6 CFM
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"

CAT-511K

Cornwell Mini Die Grinder Kit



- For tight, detailed jobs. • Smallest die grinder in its class - only 4-3/4" long. • Extremely lightweight - weighs less than 1 pound. • Includes 10 popular grinding stones - five piece 1/4" stone set and five piece 1/8" stone set. • Also include two chrome plated wrenches.

CAT-511

Cornwell Mini Die Grinder



- For tight, detailed jobs. • Smallest die grinder in its class - only 4-3/4" long. • Extremely lightweight - weighs less than 1 pound.

SPECIFICATIONS

Free Speed	25,000 RPM
Collet Size	1/4"
Net Weight	.81 lbs.
Overall Length	4-3/4"
Air Exhaust	Front
Air Pressure	90 PSI (6.2 bar)
Average Air Consumption	3.0 CFM
Air Inlet (NPT)	1/4"

CP-862

90° Angle Die Grinder



- Lock off throttle to prevent accidental start up. • Applications: high speed blending, smoothing, porting and deburring in confined areas. • 90° angle head for easy maneuverability. • Insulated grip for greater operator comfort. • Adjustable speed regulator for precise control.

SPECIFICATIONS

Free Speed	22,000 RPM
Collet Size	1/4"
Net Weight	1-1/8 lbs.
Overall Length	6-3/16"
Average Air Consumption	5 CFM
Air Inlet (NPT)	1/4"

CP-863

120° Angle Die Grinder



- Lock off throttle to prevent accidental start up. • Applications: high speed blending, smoothing, porting and deburring in confined areas. • 120° angle head for flexibility in tight quarters. • Insulated grip for greater operator comfort. • Adjustable speed regulator for precise control.

SPECIFICATIONS

Free Speed	22,000 RPM
Collet Size	1/4"
Net Weight	1-1/8 lbs.
Overall Length	7-3/8"
Average Air Consumption	5 CFM
Air Inlet (NPT)	1/4"

CP-875

Mini Angle Die Grinder



- Lock off throttle to prevent accidental start up. • Applications: high speed blending, smoothing, porting and deburring in confined areas. • Compact, lightweight design for easy maneuverability. • 90° angle head allows flexibility in tight quarters. • Complete with 1/4" and 6mm collet.

SPECIFICATIONS

Free Speed	22,500 RPM
Collet Size	1/4"
Net Weight	1 lbs.
Overall Length	4-7/8"
Average Air Consumption	5.5 CFM
Air Inlet (NPT)	1/4"

SM-35220

DA Adapter

- Turns a right angle air grinder into a Mini DA Sander. • Great time saver on plastic repairs, spot finishing or door jamb work. • Works well in any small space. • Velcro® backing pad allows reuse of sandpaper. • Comes with free sandpaper.



SM-35230 Sandpaper Assortment - includes five each of 40, 80, 180 & 320 Grit Velcro® Sanding Discs

SM-35240 Spot Finishing Kit - includes one 2-1/2" Buffing Pad and six each of 9 and 15 Micron Velcro® Discs

CAT-400HDG

4" Heavy Duty Grinder



- High torque .6 hp motor for heavy duty performance. • Safety lever throttle. • Grind wheel head guard. • Compact design. • Removable handle for close quarter jobs.

SPECIFICATIONS

Speed	11,000 RPM
Air Pressure	90 PSI
Pad Size	4"
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"
Length	9-1/2"
Shipping Weight	4 lbs.
Air Consumption	6 CFM

STC-C820

Cornwell Utility Cut-Off Tool with Steel Shield

- Approved ANSI B186.1-1984 spindle. • Built-in speed regulator. • Contoured lever throttle protects operator's hand, etc. and has a self-locking action. • Chrome plated steel guard can rotate 360°.



SPECIFICATIONS

Speed	18,000 RPM
Air Pressure	90 PSI
Disc Size	2-7/8"
Air Inlet (NPT)	1/4"
Min. Hose Size	3/8"
Length	9"
Weight	2.4 lbs.
Air Consumption	8-10 CFM

IR-326

Heavy Duty Air Cut-Off Tool



- Cuts mufflers and tail pipes fast.
- 360° rotatable chrome plated spark guard.
- Heavy duty motor.
- Contoured lever throttle with positive self-locking action.
- Built-in speed regulator.
- 3/8" arbor x 2-7/8 wheel size.

SPECIFICATIONS

Cut-Off Wheel Diameter	2-7/8"
Free Speed	18,000 RPM
Net Weight	2.3 lbs.
Length	8.88"
Air Consumption	10 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

FN-122070 Premium Repl. Cut-Off Wheels (6)

FN-122060 Repl. Cut-Off Wheels (6)

SH-77616 Repl. Cut-Off Wheels (5)

CAT-400AS

Cornwell Air Saw



- Safety lever throttle.
- Compact design allows work in tight areas.
- Able to cut up to 16 gauge capacity.
- Comfort grip handle.
- Includes two blades.
- Sound level: 95 dBA.

SPECIFICATIONS

Strokes per Minute	9,000
Net Weight	1.5 lbs.
Length	9.25"
Air Consumption	7 CFM
Air Inlet	1/4"
Minimum Hose Size	3/8"

CAT-50PFT

Cornwell Punch and Flange Tool



- Hole punch/crimp/flange up to 14 gauge.
- Meets ICAR standard.
- Head swivels 360° for ease of operation.
- Comfort grip sleeve for positive retention.

SPECIFICATIONS

Punch Hole Size	5MM
Net Weight	3-1/2 lbs.
Length	10"
Air Consumption	4 CFM
Air Pressure	90 PSI
Air Inlet (NPT)	1/4 NPT
Minimum Hose Size	3/8"

CAT-100PFT

Cornwell Punch and Flange Tool



- Hole punch/crimp/flange up to 14 gauge.
- Meets ICAR standard.
- Head swivels 360° for ease of operation.
- Comfort grip sleeve for positive retention.
- 7/8" Gap.

SPECIFICATIONS

Punch Hole Size	8MM
Net Weight	3-1/2 lbs.
Length	10"
Air Consumption	4 CFM
Air Pressure	90 PSI
Air Inlet (NPT)	1/4 NPT
Minimum Hose Size	3/8"

IR-429

Heavy Duty Reciprocating Air Saw



- For cutting intricate shapes and light radius curves in plastics, fiberglass, and composite materials, as well as aluminum and sheet metal.
- Excellent for body shop repair, muffler and exhaust work, and sun roof installations.
- Cuts flat and curved surfaces.
- Comes with 6 high-speed steel cutting blades and 2 hex wrenches.

SPECIFICATIONS

Strokes per Minute	10,000
Net Weight	1.32 lbs.
Length	8.25"
Air Consumption	8 CFM
Air Inlet	1/4"
Minimum Hose Size	3/8"

IR-329-C500 Coarse Reciprocating Saw Repl. Blades

IR-329-F500 Fine Reciprocating Saw Repl. Blades

CAT-320AN

Cornwell Air Nibbler



- Able to cut up to 18 gauge rolled steel without distortion.
- Lever throttle for ease of starting cuts.
- Compact design allows work in continued areas.
- Cut tight 1/4" radius with accuracy.
- Sounds level: 93 dBA.

SPECIFICATIONS

Strokes per Minute	2,600
Net Weight	2.2 lbs.
Length	7-1/16"
Air Consumption	4 CFM
Air Inlet	1/4"
Minimum Hose Size	3/8"



WARNING!

Wear safety goggles when using power tools. Wear hearing protection. Only use air tools for their intended purposes and applications. Always follow proper maintenance procedures. Read operating instruction thoroughly. Do not use grinding wheels, sanding discs or accessories above their maximum rated RPM.

CP-879

3/8" Reversible Air Drill

- Compact, low profile head for drilling in confined areas.
- Convenient reverse valve for simple directional changes.
- Rear exhaust directs air away from the work piece.
- Teasing throttle for control from start-up through run down.
- Applications: screwdriving, drilling in hard to reach areas.
- Sound dBA Pressure: 98.



SPECIFICATIONS

Free Speed	1,800 RPM
Chuck Size	3/8"
Spindle Size	3/8" - 24
Weight	2-1/4 lbs.
Length	8-1/4"
Avg. Air Consumption	5-1/4 CFM
Air Inlet (NPTF)	1/4"
Min. Hose Size	3/8"

CAT-375RA

Cornwell 3/8" Right Angle Reversible Drill

- Reversible for added versatility.
- 90° angle design for use in restricted areas.
- Rubber head boot for comfort and protection.
- Variable speed lever throttle.
- Ribbed handle for positive grip.
- Ball bearing construction for long life.
- 3/8" Jacobs® chuck included.



SPECIFICATIONS

Free Speed	1,800 RPM
Capacity	3/8"
Net Weight	2-3/4 lbs.
Length	8"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

STC-C250

Cornwell 3/8" Reversible Drill with Chuck

- Through-the-handle exhaust.
- Full planetary three (3) gear system.
- 1/2 H.P. Air motor.
- Convenient reverse valve for one handed directional change.
- Teasing trigger for speed control.
- Full bearing construction.
- 3/8" Jacobs® chuck.



SPECIFICATIONS

Spindle Size	3/8"-24
Free Speed	2200 RPM
Length	7.4"
Weight	2.54 lbs.
Average Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CP-710

Pneumatic Engraving Pen

- Lightweight for easy operation.
- Fine point stylus for precise engraving.
- Cushion finger grip for comfort.



SPECIFICATIONS

Blows per Minute	14,000
Capacity	1/4"
Weight	1-1/4 lbs.
Overall Length	5-1/4"
Air Consumption	1 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	1/4"

IR-7802R

3/8" Heavy Duty Reversible Air Drill

- For general purpose drilling, honing, reaming and hole sawing.
- Also drives and removes screws, including backing out tight screws without a struggle.
- Reversible 1/2 HP motor with quick reverse lever.
- Variable speed throttle.
- Industrial rated 3/8" chuck.



SPECIFICATIONS

Free Speed	2,000 RPM
Capacity	3/8"
Weight	2.5 lbs.
Overall Length	6.4"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-728-99-KC5 Keyless Chuck

STC-C255

Cornwell 1/2" Reversible Drill with Chuck

- Operator positioning dead handle.
- Through-the-handle exhaust.
- Double planetary gear system.
- 1/2 H.P. Air motor.
- Convenient reverse valve for one handed directional changes.
- Teasing trigger for speed control.
- Full bearing construction.
- 1/2" Jacobs® chuck.



SPECIFICATIONS

Speed	800 RPM
Spindle Size	3/8"-24
Length	9"
Weight	4 lbs.
Average Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

IR-7803R

1/2" Heavy Duty Reversible Air Drill

- For drilling, honing, reaming and hole sawing.
- Also drives and removes screws; tightest screws back out with ease.
- Quick reverse lever.
- Variable speed throttle.
- Heavy duty ball and needle bearing.
- Planetary gear reduction.
- Industrial rated 1/2" chuck.
- Reversible 1/2 HP motor.



SPECIFICATIONS

Free Speed	400 RPM
Capacity	1/2"
Weight	3.3 lbs.
Overall Length	8.7"
Air Consumption	4 CFM
Air Inlet (NPT)	1/4"
Minimum Hose Size	3/8"

CAT-MGG

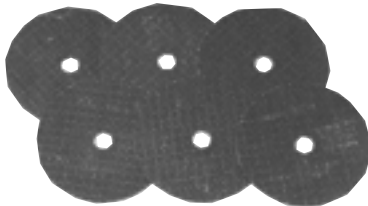
Mini Grease Gun

- Lubricate hammer mechanisms of impact wrenches with grease-type fittings.
- Needle-nose nozzle fits all flush-type fittings.
- Vacuum primed, lightweight.
- Tube holds up to 3 oz. of lubricant.
- Maintenance free construction.
- Fits most flush type fittings.
- Easy spring return trigger.
- 1.0mm and 1.4mm tips included.



Cut-Off Wheels

- Ideal for removing clamps, rusted bolts, welds and cutting sheet metal.
- 3" O.D. x 1/16" thick reinforced abrasive wheels.
- Standard 3/8" arbor hole.
- Maximum RPM: 20,372.
- Made in U.S.A.

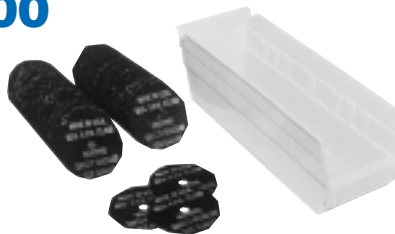


PART NO.	DESCRIPTION
FN-122070	Premium Cut-Off Wheels (6)
FN-122060	Cut-Off Wheels (6)
SH-77616	Cut-Off Wheels (5)

AS-CW3-100

Cut-Off Wheels

- For cut-off applications involving angle iron, re-bar, pipe and bar stock; cut sheet metal, metal hardware or fasteners.
- 3/8" arbor hole fits all brands of pneumatic cut-off tools.
- 100 Wheels per box.
- 46 Grit; 3" diameter; 1/16" Thickness.
- Made in the USA.



MW-8500CB

Sure Shot® Sprayer

- Use to apply bulk chemicals such as cleaners, degreasers, penetrating oils, solvents and lubricants.
- Uses compressed air rather than flammable or dangerous propellants.
- 16 oz. stainless steel canister is refillable, rechargeable and completely portable.
- Comes standard with Viton® Seals.
- Aerosol type valves and nozzles are included with each sprayer.



IR-100-1LB

Impact Wrench Grease

- Designed specifically for Ingersoll-Rand impact wrenches that use grease in the hammer mechanism.
- One pound can.



WARNING!

Wear safety goggles when using power tools. Use only impact sockets and accessories. Only use air tools for their intended purposes and applications. Read operating instructions.

Air Tool Oil

- For all piston-type/rotary air tools.
- Prevents rust formation; provides positive lubrication.
- Contains special antioxidants and rust inhibitors.



PART NO.	DESCRIPTION
MM-080-12PK	4 oz. container with spout
MM-085-12PK	1 qt. can with reversible spout cap



HW-HMP051-12PK

12 oz. Spray Lubricant

- Lubricator and penetrating oil.
- Non-gummy surface doesn't attract dust yet won't evaporate.
- Meets EPA and USDA guidelines and is ozone safe.
- Non-solvent formula is safe to use on virtually everything.

HW-HMP052-24PK

4 oz. Air Tool Oil

- Permeates metal to insure lubrication.
- Dissolves gunk; protects neoprene O-rings.
- Extends power tool life.
- Safe for all air tools, non-solvent formula.



KD-31037

JACOBS® Hand-Tite Keyless Chuck

- 3/8" to 1/2" (3/8"-24M mount).
- Reduces bit changeover time and boosts productivity.
- Patented design achieves higher gripping power than standard keyed chucks.
- No key to misplace.
- Non-rusting, high performance body with sure-grip sleeve for comfort and hand tightening efficiency.



KD-30360

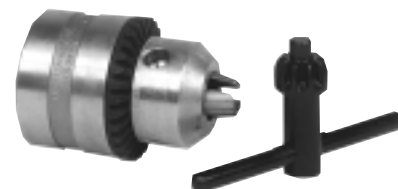
JACOBS® Drill Chuck Conversion Kit

- 3/8" (10MM) chuck to convert over current chuck to a Jacobs® keyless chuck.
- No keys to lose.
- Tough nylon, die-cast zinc sleeve design with precision ball bearing internal mechanism.
- Split-bite for greater gripping capability.
- Kit Includes: 3/8" Jacobs® keyless drill chuck, 1/4" and 1/8" Allen® hex wrenches, and T15 Torx® wrench.



JACOBS® Multi-Craft® Chucks

- Features time-tested design normally found in industrial-grade chucks.

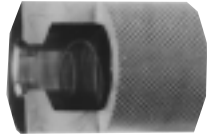


PART NO.	DESCRIPTION
KD-30243	1/4" Chuck (3/8"-24M) & Key
KD-30247	3/8" Chuck (3/8"-24M) & Key
KD-30598	1/2" Chuck (3/8"-24M) & Key

SH-77339

Safety Chuck Tool Holder

- Safety chuck replaces conventional spring retainers.
- High grade aluminum with spring and rubber cushion.
- Fits all hammers.
- Provides quick chisel changeover.



CCR-100

Cornwell Universal Air Hammer Chisel Retainer

- Use with .401 shank tools and non-turn chisels.
- Versatile, durable accessory.
- Thread design fits majority of air hammers.
- Precision machined, hardened steel.



CCR-121

Cornwell Custom Air Hammer Chisel Retainer

- Versatile, durable accessory.
- Precision machined, hardened steel.
- Designed specifically for use with the IR-121 Super Duty Air Hammer.



CCR-150

Cornwell Safety Chisel Retainer

- Versatile, durable accessory.
- Thread design fits majority of air hammers.
- Precision machined, hardened steel.
- Use with .401 shank tools and non-turn chisels.



SH-77521

Quick Change Retainer

- Fits tools with .401 Parker shank.
- Rust resistant finish.
- Knurled spring loaded collar.
- Change tools in seconds, thread directly to air hammer.



SH-77440

Die Grinder Arbor

- Convert any die grinder to abrasive disc cutter.
- 1/4" and 3/8" arbor attachments.
- WARNING: Use safety guard and always wear safety goggles.



FN-5210

Retainer Spring

- For .401 shank chisels.
- Beehive spring retainer.



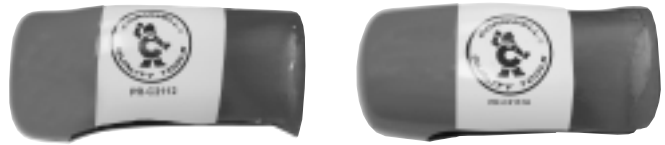
SH-77350

Quick Change Retainer Spring

- One piece high tensile retaining spring for .401 Parker shank tools.
- Fits all hammers; rust resistant finish.



Tri-Color Air Tool Covers



- Vinyl material boot protects tool from external damage.
- Absorbs some tool vibration to help prevent fatigue.
- Designed for impact wrenches.

PART NO.	USED FOR:
PR-C2112	IR-C2112 Cornwell 3/8" Ultra Duty Air Wrench
PR-C2131A	IR-C2131A Cornwell 1/2" Ultra Duty Air Wrench

Air Tool Covers

- Vinyl material boot protects tool from external damage.
- Absorbs some tool vibration to help prevent fatigue.
- Designed for impact wrenches.



PART NO.	USED FOR:
IR-244-P32	1/2" Impact Wrench, IR-244A
IR-2131-P32	1/2" Impact Wrench, IR-2131A
IR-2135-P32	1/2" Impact Wrench, IR-2135TI

Air Tool Covers

- Covers, protects, increases tool life.
- Resists oil and water.
- Comes in Cornwell blue.



PART NO.	USED FOR:
PR-JB-01	Air Ratchets
PR-JB-03	1/2" Dr. Air Wrench, CP-734 type
PR-JB-04	1/2" Dr. Air Wrench, IR-231 type
PR-JB-13	3/8" Dr. Air Wrench, IR-212 type
PR-JB-14	3/8" Dr. Air Wrench, CP-725S type
PR-JB-21	1/4" Dr. Air Ratchet Cover, IR-103 type
PR-JB-215	Protective Boot for IR-215

Air Tool Covers for IR-C232

- Vinyl material boot with ribbed construction protects tool from external damage.
- Absorbs some tool vibration to help prevent fatigue.
- Designed for use with IR-C232 1/2" Air Impact Wrench.



PART NO.	DESCRIPTION
PR-232-BL	Blue Cover
PR-232-NG	Neon Green Cover
PR-232-NO	Neon Orange Cover

CP-CA157392

Air Tool Cover

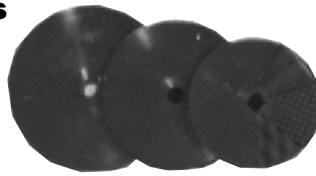
- PVC cushion-cover protects tool from external damage.
- Absorbs some tool vibration to help prevent fatigue.
- Designed for CP-C749 impact wrench.



Nylon Back Up Pads

- 3/64" thick.

PART NO.	DESCRIPTION
FN-5530	3" Nylon Pad
FN-5545	4-1/2" Nylon Pad
FN-5555	5-1/2" Nylon Pad



DA-Sanding Pads

- Dual action pads feature tapered foam molded directly to plastic back.
- Ideal for fine finishing and feathering.
- Low profile with hardened threaded insert.
- Maximum RPM: 10,000.
- Made in U.S.A.



PART NO.	DESCRIPTION
SH-77518	5" Diameter Pad
SH-77519	6" Diameter Pad

Replacement Pads

PART NO.	DESCRIPTION
HU-5136	6" Standard SB for HU-4500, HU-4560
HU-5108	8" Standard for HU-4500, HU-4560



HU-5003

Straight Line Replacement Pad

- Standard replacement pad.



SM-35400

Super Stripe Stripper

- Removes pin-stripping tape or double faced tape from body and side mouldings.
- Works fast; lasts four times longer than discs requiring high RPM's.
- Works best at low RPM's even on cordless drills (1500 RPM max.).



Abrasive Disc Kits

- Ideal for stock removal, deburring, blending and cleaning.
- Kits include four (4) each of the following Type III discs plus one (1) holder: 60 grit, 80 grit and 120 grit.

PART NO.	DESCRIPTION
MA-63327	3" Abrasive Disc Kit
MA-63329	2" Abrasive Disc Kit



Surface Preparation Kits

- Ideal for blending, removing defects, rust and oxidations.
- Kits include three (3) each of the following Type III discs plus one (1) holder: coarse, medium and very fine grit.

PART NO.	DESCRIPTION
MA-63328	3" Surface Preparation Kit
MA-63330	2" Surface Preparation Kit



MA-69026

Engine Porting Kit

- Kit includes hard tapered stone, grinding-polishing rolls in assorted sizes and grits, 1" diameter mini Grind-O-Flex wheel, butterfly flapper, 1" wide abrasive cloth in slotted mandrel and instructions.



Power-Lock Disc Holders

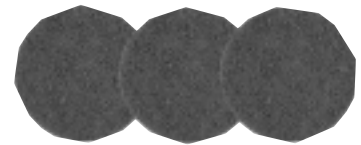
- Medium density holders designed for contour work, feathering and edging into corners.
- Type III - roll-on/roll-off style.



PART NO.	DESCRIPTION
MA-64922	2" Disc Holder
MA-64949	3" Disc Holder

Abrasive Discs

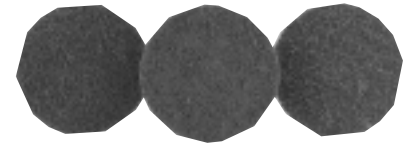
- Ideal for stock removal, deburring, blending and cleaning.
- Type III - Roll-on/roll-off style.



PART NO.	SIZE	QTY.	GRIT	PART NO.	SIZE	QTY.	GRIT
MA-61155	2"	100	60	MA-64938	3"	50	36
MA-61169	2"	100	120	MA-66183	3"	50	60
MA-64913	2"	100	36	MA-66184	3"	50	120

Surface Preparation Discs

- Thick layer of abrasive grain bonded to a reinforced non-woven nylon pad.
- Recommended for removing heavy rust and oxidation and blending machine marks and other surface flaws.
- Type III - Roll-on/roll-off style.



PART NO.	SIZE	QTY.	GRIT
MA-66289	2"	50	Coarse
MA-66290	2"	50	Medium
MA-66291	3"	25	Medium
MA-66318	2"	50	Very Fine
MA-66322	3"	25	Coarse
MA-66323	3"	25	Very Fine

PL-24-301

Compact Air Line Filter

- Removes airborne solid contaminants, pipe scale, rust, condensate, etc. which may cause wear or failure of pneumatic components.
- Maximum operating pressure is 150 PSI at 125°F.



SPECIFICATIONS

Port Size	1/4" NPTF
Drain Type	Manual Float
Bowl Capacity	5 oz.
Bowl Type	Polycarbonate
Overall Height	6.1"

SR-F-88M

Air Filter

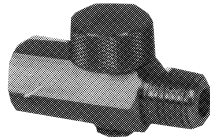
- Designed for the mechanic to protect his investment in air tools.
- Portable, mounts easily anywhere.
- Designed for use with quick couplers.
- All outlets filtered to provide clean, dry, regulated compressed air.
- Air inlet: 1/4" F.P.T.
- Air outlets: 1/4" F.P.T. and 1/4" F.P.T. (plugged).
- Filter capacity: 75 CFM.



SH-77602

Aluminum Air Regulator

- Increases or decreases pressure as required.
- Eliminates line pressure drop at the tool.
- 1/4" NPT male x 1/4" NPT female fittings.



SH-77337

Air Regulator with Gauge

- Prevents harmful pressure changes in the airline.
- Controls pressure at the tool.
- Incremental reading from 0-160 lbs.
- 1/4" female thread on both ends.



SM-33250

Hose Magnet

- Attach air hoses to any steel surface, such as tool boxes, benches/work stands, spray booths, under-the-hood or wherever convenient.
- Super strong magnet attaches directly to air hose at the fitting.
- Keeps air hoses in reach, off the floor, out of dirt and eliminates stooping to retrieve air hoses.



PL-21-605

Full Swivel Hose End

- Eliminates kinked and twisted air line by swiveling a full 360°.
- Use on air lines, tools and compressor connections.
- 1/4" NPT male fitting x 1/4" NPT female fitting.
- 150 PSI maximum working pressure.



DB-94300

1/4" NPT Composite Dynaswivel® Fitting

- Patented "universal-joint" connects portable air tools to an air line.
- Lightweight (2.15 oz.), non-marring composite construction.
- Increased air flow up to 33 SCFM.
- Swivels 360° at two pivot points for superb tool handling.
- Industrial quality.
- Thread size: 1/4" NPT.
- Attaches to percussion tools such as nail guns, impact wrenches, air hammers, ratchets, and drills.
- Do not exceed 150 PSI.



AF-3404D

3-in-1 Air Manifold

- Strong, lightweight machined aluminum construction.
- Accepts three outlet hoses or couplers.
- Supply 3 air operated tools from a single supply hose; mount to pipe at workbench or overhead for use by several workers; mount 3 different style coupler on one manifold.
- Inlet Thread: 1/4" NPTF.
- Outlet Thread: 1/4" NPTF.



TE-98500

Air Tool Oiler

- Protects pneumatic tools plus ends air line contamination.
- Patented, direct to tool oiler ends tool burn out, stops rust, and increases torque.
- High quality aircraft aluminum stem, machined to 1/4" NPT.
- Oil reservoir fabricated of high impact plastic.
- Use on all 3/8" and 1/2" air impact guns, air wrenches, body shop air tools and pneumatic hammers.



TE-94650

Refrigerant Tank Conversion Kit

- Kit contains all parts required to convert an empty refrigerant tank into a portable air tank.
- Great for use in the shop, at home or on maintenance vehicles.
- No special tools needed.
- Takes only minutes.
- Instructions included.
- Empty refrigerant tanks are available at air conditioning service outlets.



Recoiling Air Hoses

- Standard yellow hose stretches and recoils; safe for all pneumatic tools.
- In-line swivel fittings on both ends.
- Ideal for workbench, tire changers, and low pressure liquid transfer.
- Lightweight, abrasion resistant nylon.
- Completely oil proof.
- 200 PSI working pressure @ 70°F.



PART NO.	DESCRIPTION
AF-4-12	1/4" I.D. x 12' hose, 1/4" NPT
AF-4-25	1/4" I.D. x 25' hose, 1/4" NPT
AF-6-25	3/8" I.D. x 25' hose, 3/8" NPT

HOS-LC350

Hose Reel

- Low pressure reel for plant maintenance, service trucks or many other industrial functions where hose storage is a problem.
- Standard hose for air, water and water-based solutions.
- Length: 50 ft.
- Operating Pressure: 300PSI.
- 3/8" I.D.
- Self locking fasteners to avoid loosening where vibration is present.
- Manufactured from heavy gauge cold rolled metals; permanently lubricated.
- All brass shaft and swivel.
- Fully closed bead on spool to prevent hose cutting and hidden latch mechanism to prevent grime buildup.
- 6-1/2" wide x 18-3/4" high.



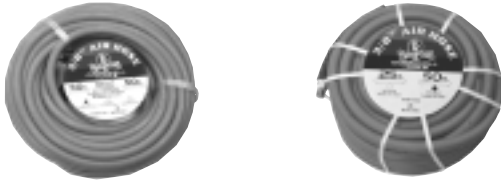
Swivel End Lead-In Hose Assemblies

- 1/4" male NPT ball swivel and 1/4" female NPT hose fitting.
- Working pressure of 200 PSI.
- Has tension relieving spring guard.
- 360° solid brass ball swivel fitting.



PART NO.	HOSE I.D.	HOSE LENGTH
AF-25L-60BD	1/4"	60"
AF-37L-30BRET	3/8"	30"

3/8" Pneumatic Air Hoses



- Smooth cover with 1/4" NPT male end fittings.
- Hose assemblies have kink restrictor on both ends.
- Rated for 300 PSI maximum service (1,200 PSI burst pressure).

PART NO.	DESCRIPTION
HCL-G25	25 ft. - PVC Green
HCL-G50	50 ft. - PVC Green
HCL-O25	25 ft. - PVC Orange
HCL-O50	50 ft. - PVC Orange
HCL-RJ25	25 ft. - Rubber
HCL-RJ50	50 ft. - Rubber
HCL-Y25	25 ft. - PVC Yellow
HCL-Y50	50 ft. - PVC Yellow

AS-8700

WorldWind Fan

- Heavy duty, industrial, multifunction fan blows dust, odor, and fumes away.
- Blows 300 cubic feet per minute.
- 2 - 15 amp, 3 prong plugs for use as additional power source.
- Plastic feet prevent scratching or damage to work surface and blower unit.
- Moving parts of motor and fan enclosed for safety of operation.
- Heavy duty, high visibility plastic housing, sturdy handle.
- 10 ft. cord for extended range of use.
- CSA approved.
- 3 speed.
- Portable; For indoor or outdoor use.



AS-8701 Heater Attachment

TE-99180

In-Line Blow Gun

- Small, compact, lightweight, durable and easy to use.
- Mounts permanently in line between air hose and coupler.
- Precision machined from aircraft aluminum.
- Air stream nozzle has a natural angle.
- Has OSHA nozzle to meet requirements of special relief hole in nozzle to limit pressure to 30 PSI when dead ended in air line of 150 PSI or less.
- 1/4" NPT Female x 1/4" NPT Female.



WARNING!

Blow guns create flying particles. Wear safety shield (users & bystanders). Do not direct air at yourself or bystanders. High pressure air blasts can cause injury.

Adjustable Pocket Blowguns



- For home, shop or garage use.
- Adjust from a whisper of air to full volume flow.
- Recommended air pressure to 150 PSI maximum.
- Knurled nozzle and pocket clip.
- Attach to air line coupler.

PART NO.	DESCRIPTION
PL-18-601	Fits all Tru-Flate design 1/4" coupler bodies
PL-18-603	Fits all Industrial/Milton design 1/4" coupler bodies
PL-18-605	Fits all Aro design 1/4" coupler bodies

AF-201RET

Rubber Tipped Blow Gun



- Provides leak-proof seal between gun and fluid line or other openings.
- Clean molds or delicate surfaces where a metal tip might scratch or harm critical areas.
- 1/4" NPT inlet thread.

AF-205

Heavy Duty Blow Gun



- Larger, heavier blow gun.
- 1/8" outlet thread accepts full range of accessories.
- 1/4" NPT inlet thread.

AF-205ATD

Heavy Duty Blow Gun



- Bent blow gun, rubber tipped for blowing out automatic transmissions and oil passages.
- 1/8" outlet thread accepts full range of accessories.
- 1/4" NPT inlet thread.

AF-220TD

Siphon Spray Gun



- Blows air-liquid mixture (solvent, soap solution) to clean floors, walls, machinery.
- Has 8 ft. of plastic suction tubing.

AF-202D

Rubber Tip



- Tip for **AF-201RET** and **AF-205ATD**.
- 1/8" NPT.

SB-A1050B

4" European Style Blow Gun



- Ergonomically designed.
- Extra-tough material.
- Variable air flow.
- Optional detachable tips.
- Hanging handle.
- Inlet connection: 1/4" NPT.
- Maximum Working Pressure: Full-Flow types 230 PSI.
- Minimum Burst Pressure: 925 PSI.
- Temperature Range: -40°F to 175°F.

SB-S4010A Conical Rubber Tip

CAT-BGK

Five Piece Blow Gun Kit

- Lightweight easy to control blow gun made from high impact plastic.
- Rubber tips to seal and clean cavities or bored holes.
- Extended trigger length on blow gun for variable throttle control.

Kit contains the following in a blow molded plastic tray:

PART NO.	DESCRIPTION
CAT-BGK-1	4-1/2" Blow Gun
CAT-BGK-2	Star Tip (complies with OSHA requirements that limits output to 30 psi)
CAT-BGK-3	1/2" Rubber Tip
CAT-BGK-4	1" Rubber Tip
CAT-BGK-5	1-3/8" Rubber Tip

Blow Guns

PART NO.	DESCRIPTION
VP-1050	4" Blow Gun
VP-1150	13" Blow Gun
VP-1250	20" Blow Gun

- Full-flow blow guns with interchangeable tips for a variety of applications.
- Built-in hook for hanging.
- Flow regulated by squeezing or releasing handle.
- Sturdy design, comfortable handle.
- Hostaform "C" insulator prevents cold hands.

TECHNICAL DATA	
Inlet Connection	1/4" NPT
Maximum Working Pressure	232 PSI
Minimum Burst Pressure	925 PSI
Temperature Range	-40°F to 175°F (-40°C to 80°C)

VP-10-4011 Rubber Tip/VP-1050

Bent Blow Guns

- Full-flow blow guns with interchangeable tips and built-in hook for hanging.
- Squeeze or release handle to regulate flow.
- Sturdy design, comfortable handle, ergonomic design.
- Hostaform "C" insulator prevents cold hands.

PART NO.	DESCRIPTION
VP-5161	13" Bent Blow Gun
VP-5261	20" Bent Blow Gun

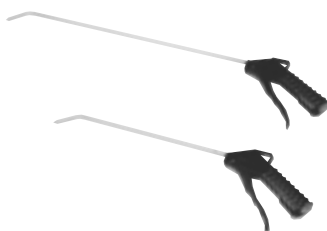
TECHNICAL DATA	
Inlet Connection	1/4" NPT
Temperature Range	-40° to 175° F
Max. Working Pressure	239 psi
Minimum Burst Pressure	13cfm

CAT-B24G

24"

Adjustable Blow Gun

- Includes one OSHA approved STAR tip (restricted air flow) and one rubber tip, both screw on for positive fit.
- Revolvable angle directional tip.
- Tip of blow gun can be swiveled 360° and locked into place by use of adjusting knob.
- Ideal for hard-to-reach places.
- Patented.
- Tube position switch knob.
- Gentle twist switch.
- Adjustable length: 12-1/2" to 24-1/2" (320mm - 610mm).



VP-10-4013

Rubber Tip Nozzle Set



- Set consists of three different sizes of rubber nozzles.
- Maximum diameters: 1/2", 1", 1-3/8".
- Easy and quick to change - saves time and effort.
- Fits all Vacula blow guns.
- Applications: Use to blow out - brake, oil, transmission and AC lines; transmission housings and valve bodies; oil galleys on engines, transmissions, etc.; RV water lines before winterizing; and freeze plug openings.

VP-10-3137

Spray Bottle Attachment

- Makes **VP-1050** or **VP-3150** Blow Gun a multi-purpose sprayer for cleaning and degreasing.
- Strong, durable plastic.
- Self-standing base.
- 40 fl. oz. capacity bottle.
- NOTE: Blow Gun not Included.**



Barbed Fittings

- Brass male hose ends for general use.



PART NO.	DESCRIPTION
MT-600	1/4" NPT x 1/4" I.D.
MT-602	1/4" NPT x 3/8" I.D.
MT-604	3/8" NPT x 1/2" I.D.

Brass Hose Ferrules

- For making custom hose assemblies.
- Rubber hose tolerances vary up to ±1/32" on the ID and OD, it is necessary to fit ferrules to each individual hose.



PART NO.	DESCRIPTION
MT-1654-2	1" x .525" ID ferrule
MT-1654-6	1" x .656" ID ferrule
MT-1654-7	1" x .687" ID ferrule

CO-IRC-06-1201

Non-scratch Push Button Pneumatic Coupling, 1/4" Female

- Fully automatic, easy one handed connection and disconnection.
- Cylindrical construction of high composite material with no external metallic parts; nitrile seals prevents scratching of finished surfaces.
- "Thru O-ring" design reduces leaks.
- Interchangeable with all sockets and plugs meeting the MILC-4109 and ISO 6150/B specifications.



PL-13-510 (bulk)

PL-13-511

Universal Coupler

- 1/4" Female NPT coupler fits the three most popular air line plugs.
- Can be used with Tru-Flate, Industrial/Milton and Aro Design 1/4" nipples.
- Quality, deluxe "push to connect style".
- Heavy duty brass construction.
- Unique tubular valve construction allows greater air flow.



TRU-FLATE NIPPLES AND COUPLERS

• Spring loaded air assisted valve design strengthens coupler seal as line pressure is increased. • Extra locking carbon steel ball bearings provide a tighter fit and accurate alignment for superior performance. • Sleeve guard reduces the potential of accidental disconnect and protects the sleeve under tough working conditions. • A tubular valve support prevents the seal from moving into the air flow path. Also eliminates wear and damage that occurs with competitive blade or knife type valves. (Maximum rated working pressure of 300 PSI.)

TRU-FLATE Design "T-Style" Nipples and Couplers

• Very short pilot. • Thickest seal surface. • Wide metal section between ball groove and pilot.

1/4" BODY SERIES

PL-12-124 (bulk)
PL-12-125

1/4" Male NPT Nipple

PL-13-124 (bulk)
PL-13-125

1/4" Male NPT Coupler

PL-12-134 (bulk)
PL-12-135

1/4" Female NPT Nipple

PL-13-134 (bulk)
PL-13-135

1/4" Female NPT Coupler

3/8" BODY SERIES

PL-12-602 (bulk)
PL-12-603

1/4" Male NPT Nipple

PL-13-610 (bulk)
PL-13-611

1/4" Female NPT Coupler

ARO Design "A-Style" Nipples and Couplers

• 5/16" pilot and ball groove which is nearly round.

1/4" BODY SERIES

PL-12-324 (bulk)
PL-12-325

1/4" Male NPT Nipple

PL-12-334 (bulk)
PL-12-335

1/4" Female NPT Nipple

PL-13-334 (bulk)
PL-13-335

1/4" Female NPT Coupler

INDUSTRIAL/MILTON Design "I/M-Style" Nipples and Couplers

• 3/16" pilot and flat bottom V-shaped ball groove. • Conforms to ANSI (NFPA) T3.20.14-1990 dimensions.

1/4" BODY SERIES

PL-12-224 (bulk)
PL-12-225

1/4" Male NPT Nipple

PL-13-224 (bulk)
PL-13-225

1/4" Male NPT Coupler

PL-12-234 (bulk)
PL-12-235

1/4" Female NPT Nipple

PL-13-234 (bulk)
PL-13-235

1/4" Female NPT Coupler

PL-13-201

Coupler/Nipple Set

• Consists of one PL-12-225 (1/4" Male NPT Nipple) and one PL-13-235 (1/4" Female NPT Coupler).

LINCOLN Design "L-Style" Nipples and Couplers

• Long 3/4" pilot. • Round bottomed ball groove.

1/4" BODY SERIES

PL-12-424 (bulk)
PL-12-425

1/4" Male NPT Nipple

PL-12-434 (bulk)
PL-12-435

1/4" Female NPT Nipple

PL-13-434 (bulk)
PL-13-435

1/4" Female NPT Coupler

AF-C90

1/4" Hi-Flo™/HVLP Coupler - Brass



- For use with high air usage air tools, HVLP and conventional paint spray guns.
- Solid brass body with hardened steel sleeve for strength and corrosion resistance.
- Six-ball locking mechanism.
- Max. air flow @ 30 PSI: 15.5 SCFM; @ 80 PSI: 23 SCFM
- Pressure drop <2.0 PSI.
- Fully automatic "push-to-connect" operation.
- 300 PSI maximum working pressure.

AF-CP91

1/4" Hi-Flo™ Plug - Steel



- Ideal for use with sanders, grinders and other high air usage tools.
- Zinc plated, heat treated steel construction for long life in demanding applications.
- Six-ball locking mechanism for secure connection and better wear distribution.
- Max. air flow @ 80 PSI: 23 SCFM
- Pressure drop <2.0 PSI
- Fully automatic "push-to-connect" operation.
- 300 PSI maximum working pressure.

ZZ-4HPS

4 Piece Pneumatic Hammer and Punch Set

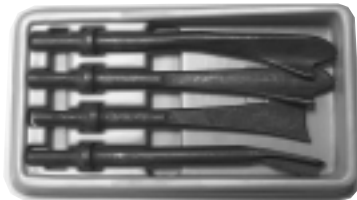


- Set consists of the following:

PART NO.	DESCRIPTION
OF-1972	Cold Chisel
OF-1997	Taper Punch 1/8" Dia. Point
OF-1979	Taper Punch 3/8" Dia. Point
OF-1982	4" Long Body Hammer

ZZ-4MTS

4 Piece Pneumatic Chisel Muffler/ Tailpipe Set

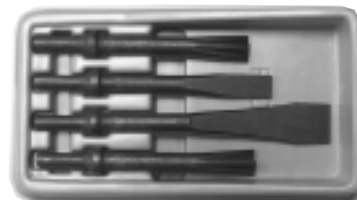


- Set consists of the following:

PART NO.	DESCRIPTION
OF-1965	Muffler-Tailpipe Remover
OF-1966	"Inside" Muffler Cutter
OF-1967	"Outside" Muffler Cutter
OF-1968	Tailpipe Cutoff Tool

ZZ-4SMS

4 Piece Pneumatic Chisel Sheet Metal Set



- Set consists of the following:

PART NO.	DESCRIPTION
OF-1958	Slotted Panel Cutter
OF-1959	Sheet Metal Cutter
OF-1975	Rivet and Bolt Cutter
OF-1976	Scraper

OF-2012

1/8" Pneumatic Taper Punch



- Has 1/8" diameter point for driving out pins and rivets.
- 18" length allows for extended reach.
- Shank size: .401.

Cold Chisels



- Cut bolts, nuts, tees, angles or frame members.
- Every mechanic, whatever his trade, will find dozens of uses.

PART NO.	DESCRIPTION
OF-1972	6" Cold Chisel
OF-1973	8" Cold Chisel

OF-1986

Cold Chisel



- Cuts bolts, nuts, tees, angles or frame members.
- Extra 18" length for hard-to-reach areas; Weight: 1 lb.
- Shank size: .401.

OF-1975

Rivet and Bolt Cutter



- Shears rivets and bolts in bumpers, grills, frames and brackets.
- Length: 6-1/2"; Weight: 6 oz.
- Shank size: .401.

OF-1960

Spot Weld Breaker



- For cutting weld spots, molding, and rivets.
- Length: 6-1/4"; Weight: 6 oz.
- Shank size: .401.

OF-1997

Taper Punch



- Has 1/8" diameter point for driving out pins and rivets.
- Length: 6-1/2"; Weight: 6 oz.
- Shank size: .401.

OF-1979

Taper Punch



- 3/8" diameter point.
- Punch holes in sheet metal, drive rivets or hinge pins or use for peening or crimping bodies.
- Length: 6"; Weight: 6 oz.
- Shank size: .401.

OF-1955

Body Ripper



- Cuts a fast, clean short radius, shortens edging and welding work.
- Length: 6"; Weight: 6 oz.
- Shank size: .401.

OF-1956

Double-Cut Body Ripper



- Service tool with two cutting edges.
- Length: 6"; Weight: 6 oz.
- Shank size: .401.

OF-1957

Panel Cutter

- Fast cutting precision tool to cut straight or radius on body or door panels. • Length: 6"; Weight: 6 oz. • Shank size: .401.



OF-1961

Radius Cutter

- Cuts a smooth, fast, tight radius. • Length: 6"; Weight: 6 oz. • Shank size: .401.



OF-1958

Slotted Style Panel Cutter

- Leaves a clean and smooth edge with the cut curling up through the slot. • Length: 6"; Weight: 6 oz. • Shank size: .401.



OF-1981

Hammer

- For any hammering operation such as U-joints and ball joints and for body forming work. • 1" diameter. • Length: 3-1/2". • .401 Parker shank.



OF-1982

Long Body Hammer

- For any hammering operation such as U-joints, ball joints and for body forming work. • Longer length is needed for many quick change holders to provide a better striking force. • Length: 4".



OF-1959

Sheet Metal Trimmer

- Not designed to be a panel cutter. • For use on lighter weight sheet metal. • Use as an edger without stretch or distortion eliminating much grinding. • Length: 6"; Weight: 6 oz. • Shank size: .401.



OF-1976

Scraper

- Removes gaskets, rust, undercoating, paint, remove floor tile, plaster or roof coatings. • 1-1/8" wide blade is offset for hand clearance. • Length: 8"; Weight: 8 oz. • Shank size: .401.



OF-2010

1-1/8" Pneumatic Scraper

- Removes gaskets, rust, undercoating, paint, remove floor tile, plaster or roof coatings. • 1-1/8" wide blade is offset for hand clearance. • Length: 18". • Shank size: .401.



OF-1971

Splitting Tool

- Slice through bushings, cylinder sleeves and muffler connections. • Length: 8-1/4"; Weight: 8 oz. • Shank size: .401.



OF-1996

Ball Joint Separator

- Designed to handle ball joints with a minimum of extra shock to the assembly. • Opening between jaws: 15/16". • .401 Parker shank fits any standard pneumatic gun.



OF-2011

3/8" Pneumatic Taper Punch

- Has 3/8" diameter point for driving out pins and rivets. • Length: 18". • Shank size: .401.



OF-1993

Tie Rod Sleeve Breaker

- Vibration breaks loose rust/corrosion from threads of tie rod assembly to permit easy adjustment or removal. • .401 Parker shank.



OF-1995

Tie Rod Separator

- Tapered prongs made from a single piece of alloy heat-treated drop forging. • The specific opening between tines of 21/32" does the job quickly and properly. • .401 Parker shank fits any standard pneumatic gun.



OF-1991

Control Arm Bushing Remover

- Front end tool, pneumatic chisel. • Concave design holds cutting edge against bushing. • Black oxide finish with polished shank. • .401 Parker shank.



OF-1969

Combination Muffler Cutter

- Use as inside or outside muffler cutter; adapts to many ripping and cutting jobs. • Length: 7-3/4"; Weight: 8 oz. • Shank size: .401.



OF-1968

Tailpipe Cutoff Tool

- Thin blade with sharp concave edge cuts off tailpipes with ease. • Length: 7-3/4"; Weight: 8 oz. • Shank size: .401.



OF-1967

"Outside" Muffler Cutter

- Concave cutting edge fits the outside of the muffler. • Length: 8-1/4"; Weight: 8 oz. • Shank size: .401.



OF-1966

"Inside" Muffler Cutter

- Design of the convex cutting edge fits the inside of the muffler. • Length: 8-1/4"; Weight: 8 oz. • Shank size: .401.



OF-1965

Muffler and Tailpipe Remover

- Separate telescoped tubing without damage to inner section. • Length: 8-1/4"; Weight: 8 oz. • Shank size: .401.



WARNING!

Wear safety goggles. Avoid prolonged exposure to vibration. Wear hearing protection.

SINGLE AND TWO STAGE COMPRESSORS

- Start-Stop pressure switch control. • Fully enclosed belt guard • ASME safety valves. • Tank drain and discharge valve. • All compressors include: Magnetic starter, low oil switch, and automatic tank drain. • 5 and 7.5 HP units include triple pass pump-mounted aftercooler. • 100% factory tested at full pressure before shipment.



ACC-6061V

6 HP Single Stage Compressor

- One year warranty.

SPECIFICATIONS

Horsepower	6
Pump Stages	1
Voltage	230/ 1PH
Maximum Pressure	130
CFM	12.35 @ 100
Tank Size	60V asme



ACC-218V

5 HP Two Stage Compressor

- Two year warranty.

SPECIFICATIONS

Horsepower	5
Pump Stages	2
Voltage	230/ 1PH
Maximum Pressure	175
CFM	15.33 @ 100
Tank Size	80V asme



ACC-318VL

7.5 HP Two Stage Compressor

- Two year warranty.

SPECIFICATIONS

Horsepower	7.5
Pump Stages	2
Voltage	230/ 1PH
Maximum Pressure	175
CFM	25.25 @ 100
Tank Size	80V asme



ACC-318VN

5 HP Two Stage Compressor

- Two year warranty.

SPECIFICATIONS

Horsepower	5
Pump Stages	2
Voltage	230/ 1PH
Maximum Pressure	175
CFM	18.5 @ 100
Tank Size	80V asme



WARNING!

Wear safety goggles. Do not use air from compressor as a breathing supply. Relieve pressure before servicing. Do not modify/repair/rework pressure vessel or change safety relief pressure setting. Do not use without all guards in place. High voltage will create an electrical shock; disconnect all power before servicing. Read operating instructions thoroughly on equipment and tools before using.

IR-280

1" Super Duty Air Impact Wrench



- The ultimate in quality - 1" drive wrench with up to 1,600 ft.-lbs. of maximum torque to handle tough jobs in cramped spaces. • Built-in Pressure-Feed Lube System. • Adjustable side handle. • Built-in oil reservoir provides continuous misting of the air motor.

Contact your local Cornwell dealer for complete details!

MK-6019DWLE

3/8" 7.2V Cordless Driver-Drill and Flashlight Kit



- 7.2V cordless driver drill and flashlight kit, use the same rechargeable 7.2VDC battery.
- In-line design brings drilling and driving pressure in line with center of drill bit axis.
- 2-speed gear selection; low 0-200 RPM or high 0-600 RPM; plus variable speed in each range.
- Two bit holders and keyless chuck.
- Keyless chuck for fast and easy bit installation.
- Ten torque settings plus drill mode.
- Reversible for removing screws.
- Kit includes: cordless drill, 2 batteries, charger, Phillips® bit, battery cover, plastic tool case, and flashlight.

MK-DC1413 Charger
MK-632002-4 7.2VDC Battery

MK-6226DWLE

3/8" 9.6V Cordless Driver-Drill and Flashlight Kit



- Compact tool body with T-handle design; net weight: 3.1 lbs.
- Flashlight features a 4-position adjustable head.
- 2-speed: 0-350 RPM or 0-1100 RPM.
- Keyless chuck, total control trigger and forward/reverse switch.
- Sixteen torque settings plus drill mode; maximum torque 170 in./lbs.
- Electric brake stops chuck quickly.
- Kit includes: cordless drill, 2 batteries, keyless chuck, charger, battery cover, Phillips®/slotted bit, plastic tool case, and **MK-ML903** flashlight.

MK-DC1413 Charger
MK-192638-6 9.6V Battery
MK-763132-1 Keyless Chuck

VEC-255

Cordless Air Compressor and Inflator Combo



- Heavy duty 260 PSI Air Compressor includes: Cordless rechargeable battery pack, Corded DC 12V power pack, 12' cord, AC 110V household wall charger, Adapter nozzle set and storage compartment, 15" Air compressor hose, and Analog pressure gauge.
- Inflates up to 4 tires on one charge.
- Inflator/Deflator includes 5 piece nozzle adapter set.
- Inflates and deflates rafts, pool toys, floats, air mattresses, etc.
- Up to 300/L/minute.

MK-6217DWDLE

3/8" 12V Cordless Driver-Drill and Flashlight Kit



- Electric brake, reversible, variable speed trigger, keyless chuck, and clutch equipped.
- Shift Lock™ drive system quickly locks out clutch when shifting from driver to drill mode.
- All metal gear transmission.
- Externally accessible brushes for serviceability.
- Locking ratcheting chuck for secure tightening of bits and unmatched grip strength.
- Large spindle bearing ensures positive, on-center drilling performance.
- Maximum performance two-piece D-31 motor delivers power, efficiency, and serviceability in a more compact size.
- Ergonomically designed rubberized grip.
- 2.6Ah nickel-metal hydride batteries.
- Includes 2 Ni-MH batteries, multi-voltage charger, Phillips®/slotted bit, 3/8" driver-drill, plastic tool case, and flashlight.

SPECIFICATIONS

Maximum Torque	310 in.-lbs.
Capacity (steel)	3/8"
Capacity (wood)	1"
No Load Speed (low)	0-400 rpm
No Load Speed (high)	0-1,300 rpm
Watt Hours	31.2
Overall Length	9-1/8"
Net Weight	4.2 lbs.

MK-6337DWDLE

1/2" 14.4V Cordless Driver- Drill & Flashlight Kit



- Electric brake, reversible, variable speed trigger, keyless chuck, and clutch equipped.
- Shift Lock™ drive system quickly locks out clutch when shifting from driver to drill mode.
- All metal gear transmission.
- Externally accessible brushes for serviceability.
- Locking ratcheting chuck for secure tightening of bits and unmatched grip strength.
- Large spindle bearing ensures positive, on-center drilling performance.
- Maximum performance two-piece D-31 motor delivers power, efficiency, and serviceability in a more compact size.
- Ergonomically designed rubberized grip.
- 2.6Ah nickel-metal hydride batteries.
- Includes 2 Ni-MH batteries, multi-voltage charger, Phillips®/slotted bit, 1/2" driver-drill, plastic tool case, and flashlight.

SPECIFICATIONS

Maximum Torque	350 in.-lbs.
Capacity (steel)	1/2"
Capacity (wood)	1-1/4"
No Load Speed (low)	0-400 rpm
No Load Speed (high)	0-1,300 rpm
Watt Hours	37.4
Overall Length	9-9/16"
Net Weight	4.6 lbs.

ZN-CI-2140

3/8" Cordless Impact Wrench

- Ultra power impact transmission.
- Metallic hammer housing.
- Ergonomic soft grip handle.
- Super power fan cooled motor.
- One hour quick charger.
- Hand strap to help prevent accidents.
- ISO9000 quality assurance.
- Torque: 90 ft.-lbs.
- Includes 2 1.3Ah batteries.
- 14.4V heavy duty battery pack.



ZN-CI-2182

1/2" Cordless Impact Wrench

- Ultra power impact transmission.
- Metallic hammer housing.
- Ergonomic soft grip handle.
- Extra high torque for tire removal.
- Super power fan cooled motor.
- One hour quick charger.
- Hand strap to help prevent accidents.
- ISO9000 quality assurance.
- Torque: 240 ft.-lbs.
- Includes 2 2.0Ah batteries.
- 18.0V heavy duty battery pack.



MK-ML700

7.2V Rechargeable Flashlight



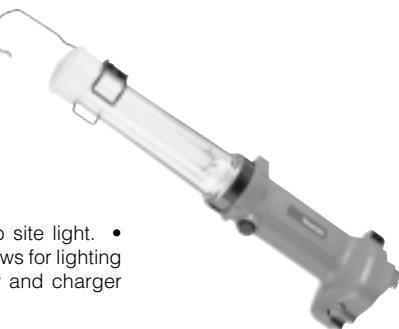
- Provides 120 minutes of continuous illumination from a single charge.
- Lightweight - 1.5 lbs. with battery.
- Three position pivoting head.
- Overall length: 10-1/2".
- Battery and charger sold separately.

- MK-192240-5** Replacement Bulb
- MK-410307-0** Replacement Ring
- MK-431002-9** Replacement Lens
- MK-632002-4** 7.2VDC Ni-Cd Battery, Stick Style
- MK-DC1413** Charger

MK-ML123

12V Fluorescent Light

- Rechargeable 12V/9.6V job site light.
- Lens at the top of protector allows for lighting of narrow corners.
- Battery and charger sold separately.



MK-ML903

9.6V Rechargeable Flashlight, Pod-Style



- Provides 120 minutes of continuous illumination from a single charge.
- Lightweight - 1.5 lbs. with battery.
- Four position head enables use in tight quarters or angling the beam in a given direction.
- Overall length: 10".
- Battery and charger sold separately.

- MK-192019-4** 9.6VDC Ni-Cd Battery, Pod-style
- MK-192546-1** Replacement Bulb
- MK-415807-5** Replacement Ring
- MK-415866-9** Replacement Lens
- MK-DC1413** Charger

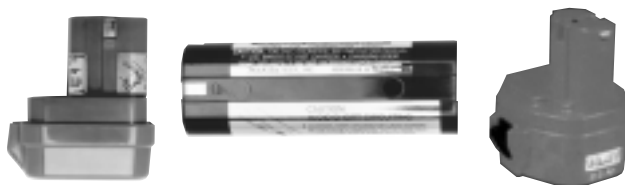
MK-DC1413

14.4V Charger



- Charges all Ni-MH and Ni-Cd removable batteries.
- Charges up to a 3.0 battery!
- For all 7.2V, 9.6V, 12V, and 14.4V tools.

Cordless Tool Batteries



PART NO.	DESCRIPTION
MK-192019-4	9.6VDC Ni-Cd Battery (pod-style) (1.3 Ah)
MK-192638-6	9.6VDC Ni-Cd Battery with side buttons (pod-style) (1.3 Ah)
MK-632002-4	7.2VDC Ni-Cd Battery (stick-style) (1.3 Ah)
MK-632007-4	9.6VDC Ni-Cd Battery (stick-style) (1.3 Ah)

MK-9227C

7" Electronic Sander/Polisher



* Shown with optional wool bonnet.

- Variable speed.
- Soft start feature for smooth startups.
- Pre-set speed setting dial (600-3,000RPM) for maximum control.
- Electronic speed control maintains constant speed under load.
- Easily converts to a sander.
- 3-prong plug to prevent static electricity accumulation.
- Fast and powerful for clearcoat finishes.
- Lock-on button for continuous use at one speed.
- Includes hook-and-loop pad and hex wrench.

SPECIFICATIONS

Spindle Thread	5/8" - 11UNC
Overall Length	18-1/2" (470MM)
Net Weight	6.6 lbs. (3.0 kg.)

MK-9524NB**4-1/2" Angle
Grinder**

- Switch is located on top of motor housing.
- Small circumference barrel grip.
- High power-to-weight ratio.
- Labyrinth construction seals motor and bearings from contamination.
- Spindle lock for easy wheel changes.
- Side handle can be installed on either side of tool.
- Double insulated.
- Includes: 4-1/2" grinding wheel, lock nut wrench, side handle, lock nut, inner flange, and wheel guard.

SPECIFICATIONS

No Load Speed	11,000 RPM
Amps (115V)	5.0
Spindle Thread	5/8"-11UNC
Overall Length	10-1/8" (256MM)
Net Weight	3.1 lbs. (1.4 kg.)

MK-JR3000V**Reciprocating
Saw with Case**

- Variable speed for precise cutting in a wide variety of materials.
- Powerful motor for continuous operation.
- All ball and needle bearings.
- Accepts standard 1/2" shank blades.
- Adjustable slide out shoe for longer blade life.
- Blade can be inverted for near flush cutting.
- Lightweight; double insulated.
- Includes: three blades, hex wrench, and plastic tool case.

SPECIFICATIONS

Length of Stroke	1-3/16" (30MM)
Strokes per Minute	0 - 2,300
AMPS (115V)	6.0
Overall Length	15-3/4" (400MM)
Net Weight	6.4 lbs. (2.9 kg.)

KE-KD200**Electric 18 Gauge
Portable Power
Shears**

- Double-cut shears feed quickly and quietly, without warping or bending finished piece.
- Follows a scribed line.
- Swiping action of blades seals the edge of coated metals.
- Cuts sheet metal in straight or contour lines at 180° per minute.
- Cuts plastic or Formica up to 3/32" thick.
- 120 Volt AC, 5.0 amps, single speed 2500 rpm, on/off switch, double insulated.
- Length: 14".
- Net Weight: 4 lbs.
- Cutting capacity: 18 ga. mild steel, 20 ga. stainless.

KE-60-21 Rpl. Center Cutter Blade

KE-60-22L Rpl. Left Cutter Blade

KE-60-22R Rpl. Right Cutter Blade

SH-77341**Bonnet Cleaning
Tool**

- Cleans and adds lift to buffing pads and bonnets.
- Removes glazed surfaces.
- Fluffs packed wool.
- Cleans without removing pad.
- All steel construction plated for long life and rust resistance.

DE-3962-02**MultiPro® Kit**

- Features comfort-grip housing for better control and easier handling.
- Quick-change collet; Collet Capacity: 1/32"-1/8", 1/8" included.
- Ball-bearing universal motor runs cool and smooth under load.
- Replaceable motor brushes for 5 times longer motor life.
- 120V, 1.15 Amps; 5,000 - 35,000 RPM.

- Kit contains the following 75 accessories in a portable storage case:

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
DE-150	1	Drill Bit	DE-425	2	Emery Wheel
DE-191	1	H.S. Cutter	DE-426	1	Cut-Off Wheel
DE-401	1	Mandrel	DE-429	4	Felt Wheel
DE-402	1	Mandrel	DE-430	1	Drum Shank
DE-407	1	Sanding Band	DE-431	3	Drum Band
DE-408	3	Sanding Band	DE-432	3	Sanding Band
DE-409	5	Cut-Off Disks	DE-438	3	Grit Sanding
DE-411	36	Sanding Disc	DE-541	1	Alum. Oxide Wheel
DE-414	4	Felt Wheel			
DE-420	3	Cut-Off Wheel	DE-8193	1	Alum. Oxide

DE-225**Flex-Shaft
Attachment**

- Use with **DE-395** Variable-Speed MultiPro® Rotary Tool for hard to reach places.
- Easily attaches to corded Rotary Tool.
- 36" long cable with a slim 1/2" diameter handpiece.

**Drill Chuck Keys**

- For all popular power drill chucks.
- Precision formed heads for accurate fit.
- Hardened and tempered for long life.

**PART NO. DESCRIPTION**

VA-14901	1/4" Chuck Key - 5/32" Pilot
VA-14904	1/4" Chuck Key - 13/64" Pilot
VA-14907	1/4" and 3/8" Chuck Key - 1/4" Pilot
VA-14919	3/8" Chuck Key - 15/64" Pilot
VA-14920	3/8" and 1/2" Chuck Key - 9/32" Pilot
VA-14923	1/2" Chuck Key - 1/4" Pilot
VA-14926	1/2" Chuck Key - 11/32" Pilot

VA-14929**Keyholder**

- Attach chuck key to power drill cord.
- End key loss and keep chuck key always handy with this pliable molded keyholder.
- Fits all chuck keys and drill cords.

SW-ST13**Master Chuck Key**

- Opens 1/4" to light duty 1/2" chucks.
- Opens 127 different chucks.
- Save wear on chucks by always having the proper key size.
- Manufactured of treated steel with a black oxide finish.
- Squared center opens standard acetylene tanks.



VEC-040

Pocket Power™ DC/AC Inverter

- Converts a vehicle's 12V DC cigarette accessory receptacle into one 110V AC household type wall socket.
- Powers laptop computers, video games, TVs, radios, and stereos.
- Recharges power tool battery packs, cell phones, camcorders, and more.
- High surge capacity (70 Watt continuous/100 Watt peak).
- Compact design for easy portability.
- Low power consumption ensures longer battery life.
- Electronic circuit protection prevents damage due to overloading or insufficient ventilation.
- Low battery shutdown.



VEC-024

MAXX™ 400 Watt Power Inverter

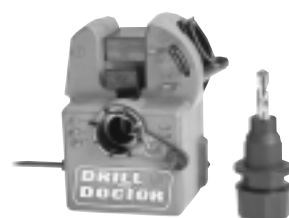
- Converts 12 Volt DC to 110 Volt AC Household type wall socket.
- Powers up to 3.6 Amps.
- Soft Start Technology (SST) gradually and safely ramps up the output voltage to start difficult motorized loads and protects sensitive appliance circuits.
- Automatic reset.
- Turbo cooling and noise free technology.
- LED power and fault indicators.
- Includes heavy duty cable clamps for high-output direct battery connections.
- Cigarette plug cord for lower wattage use.
- Dual AC outlet.
- 400 watts continuous power; 800 watts peak.



Drill Bit Sharpeners

DS-500SP

DS-750SP



- Re-sharpen carbide, high speed steel, standard, masonry, split point, cobalt, TiN coated and parabolic twist drill bits with 118° or 135° angles.
- Sharpens conventional point, split-point or masonry bits.
- Sharpening time 30-90 seconds depending on drill bit size.
- Drill bit types: Two flute, fractional, metric, number & letter sizes.
- Double insulated.
- Six foot long cord.
- 1.75 amp motor; Power supply: 120 volts.

PART NO.	DESCRIPTION
DS-500SP	Includes 3/32" - 1/2" chuck, 1/2" Diamond Wheel
DS-750SP	Deluxe model - includes 3/32" - 1/2" & 1/2" - 3/4" chucks, chuck holder and 1/2" Diamond Wheel

DS-SA-01506PA

Left-Hand Drill Chuck

- For sharpening left-handed drill bits.
- 2.25H" x 2.25"W x 3.75"D.
- Weight: .22 lbs.



High Speed Steel Drill Bit Sets

- Organized for accessibility.
- Metal boxes are rugged steel with hinged indexes and bit sizes clearly visible.
- Jobbers length fractional drill sizes.



PART NO.	PCS.	DRILL SIZES (in.)
VA-10135	13	1/16 to 1/4 by 64ths in metal index
VA-10138	15	1/16 to 1/2 by 32nds in metal index
VA-10141	21	1/16 to 1/2 by 64ths in metal index
VA-10144	29	1/16 to 1/2 by 64ths in metal index

VA-10161 Metal Index only/VA-10144

VEC-043

MAXX™ 700 Watt Power Inverter

- Converts 12 Volt DC to 110 Volt AC Household type wall socket.
- Powers up to 6.8 Amps.
- Soft Start Technology (SST) gradually and safely ramps up the output voltage to start difficult motorized loads and protects sensitive appliance circuits.
- Automatic reset.
- Turbo cooling and noise free technology.
- LED power and fault indicators.
- Includes heavy duty cable clamps for high-output direct battery connections.
- Dual AC outlet.
- 750 watts continuous power; 1500 watts peak.



VEC-049

MAXX™ 1000 Watt Power Inverter

- Converts 12 Volt DC to 110 Volt AC.
- Soft Start Technology (SST) gradually and safely ramps up the output voltage to start difficult motorized loads and protects sensitive appliance circuits.
- Automatic reset.
- Turbo cooling and noise free technology.
- Three grounded AC receptacles.
- Powerful internal High-Speed cooling fan.
- Overload protection.
- Low battery alarm and low battery shutdown.
- Short circuit protection.
- 1000 watts continuous power; 2000 watts peak.



High Speed Steel Drill Bits



- Precision ground bits for drilling steel, wood and plastic.
- Precision crafted from premium high speed steel.
- Hardened and tempered for long life and high performance; jobbers length fractional.
- 118° point for general purpose drilling applications.

PART NO.	DIA. (in.)	OVERALL LENGTH (in.)	FLUTE LENGTH (in.)
VA-10104	1/16	1-7/8	7/8
VA-10105	5/64	2	1
VA-10106	3/32	2-1/4	1-1/4
VA-10107	7/64	2-5/8	1-1/2
VA-10108	1/8	2-3/4	1-5/8
VA-10109	9/64	2-7/8	1-3/4
VA-10110	5/32	3-1/8	2
VA-10111	11/64	3-1/4	2-1/8
VA-10112	3/16	3-1/2	2-5/16
VA-10113	13/64	3-5/8	2-7/16
VA-10114	7/32	3-3/4	2-1/2
VA-10115	15/64	3-7/8	2-5/8
VA-10116	1/4	4	2-3/4
VA-10117	17/64	4-1/8	2-7/8
VA-10118	9/32	4-1/4	2-15/16
VA-10119	19/64	4-3/8	3-1/16
VA-10120	5/16	4-1/2	3-3/16
VA-10121	21/64	4-5/8	3-5/16
VA-10122	11/32	4-3/4	3-7/16
VA-10123	23/64	4-7/8	3-1/2
VA-10124	3/8	5	3-5/8
VA-10125	25/64	5-1/8	3-3/4
VA-10126	13/32	5-1/4	3-7/8
VA-10127	27/64	5-3/8	3-15/16
VA-10128	7/16	5-1/2	4-1/16
VA-10129	29/64	5-5/8	4-3/16
VA-10130	15/32	5-3/4	4-5/16
VA-10131	31/64	5-7/8	4-3/8
VA-10132	1/2	6	4-1/2

VA-10444

15 Piece High Speed Steel (HSS) 1/4" Reduced Shank Drill Bit Set

- 1/4" reduced shank drill bit set to fit any drill. • Ideal for steel, wood and plastic. • Reduced shank allows drilling larger holes with 1/4" drills. • Packed in molded plastic storage case with sizes clearly marked on case. • Comes with center punch made of tempered, hardened steel with double-knurled shank for centering drill bits. • Includes drill bit sizes: 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8", 7/16", 1/2".

VA-14990 Center Punch

High Speed Steel 1/4" Reduced Shank Drill Bits

- Precision ground bits for drilling steel, wood and plastic. • Crafted from premium high speed steel. • Hardened and tempered. • 118° point for general purpose drilling applications; prevents drill walking. • Reduced shank allows drilling larger holes with 1/4" drills. • No center punching needed.

PART NO.	DIA. (in.)	OVERALL LENGTH (in.)	FLUTE LENGTH (in.)
VA-10420	5/16	4	2-1/2
VA-10424	3/8	4	2-1/2
VA-10428	7/16	4	2-1/2
VA-10432	1/2	4	2-1/2

VA-10492

29 Piece High Speed Steel (HSS) 3/8" Reduced Shank Drill Bit Set in Metal Index

- Organized for accessibility in rugged steel box with hinged index. • Bit size clearly visible. • 3/8" reduced shank drill sizes: 1/16" to 1/2" by 64ths.

High Speed Steel 3/8" Reduced Shank Drill Bits

- Precision ground bits for drilling steel, wood and plastic. • Crafted from premium high speed steel. • Hardened and tempered. • 118° point for general purpose drilling applications; prevents drill walking. • Specially designed to fit drills with chucks 3/8" and larger.

PART NO.	DIA. (in.)	OVERALL LENGTH (in.)	FLUTE LENGTH (in.)
VA-10481	25/64	5-1/8	3-3/4
VA-10482	13/32	5-1/4	3-7/8
VA-10483	27/64	5-3/8	3-15/16
VA-10484	7/16	5-1/2	4-1/16
VA-10485	29/64	5-5/8	4-3/16
VA-10486	15/32	5-3/4	4-5/16
VA-10487	31/64	5-7/8	4-3/8
VA-10488	1/2	6	4-1/2

High Speed Steel 1/2" Reduced Shank Drill Bits

- Designed for heavy-duty drilling applications. • Special high-temperature surface treatment for superior wear resistance. • For harder carbon and alloy steels. • Ideal for machine shops, garages, and farm and highway maintenance shops. • Special 118° Winslow helical point geometry is self centering and requires feed pressure. • Fit all 1/2" drills and drill presses.

PART NO.	DIA. (in.)	OVERALL LENGTH (in.)	FLUTE LENGTH (in.)
VA-10536	9/16	6	3-7/8
VA-10540	5/8	6	3-7/8
VA-10544	11/16	6	3-7/8
VA-10548	3/4	6	3-7/8
VA-10552	13/16	6	3-7/8
VA-10556	7/8	6	3-7/8
VA-10560	15/16	6	3-7/8
VA-10564	1	6	3-7/8

VA-12808

1/8" Stubby High Speed Steel (HSS) Drill Bit

- Screw machine length fractional drill bit; industrial duty. • Ideal for sheet metal. • Special high temperature surface treatment for superior wear resistance and extra long life. • Stubby length increases rigidity and reduces breakage. • 135° split point prevents walking. • Diameter: 1/8". • Overall length: 1-7/8". • Flute length: 7/8".

VA-13508

1/8" High Speed Steel (HSS) Double End Drill Bit

- Industrial duty bit for drilling sheet metal and aluminum. • 135° split point prevents drill walking. • Surface treated for extra long life. • Precision ground from premium high speed steel. • Diameter: 1/8". • Overall length: 2-1/8". • Flute length: 11/16".

SH-77395

1/8" High Speed Steel (HSS) Double End Drill Bits

- 135° split point. • High speed steel. • Diameter: 1/8". • Overall length: 2".

VA-13484

5 Piece Left-Hand Drill Bit Set

- Perfect set of companion drills for straight flute screw extractors No. 1-5. • Ideal for extracting broken right-hand threaded studs and bolts. • For use in reversible drills, lathes, and milling machines. • 118° point for general purpose drilling • Includes drill sizes: 1/8", 3/16", 1/4", 5/16" and 3/8".

Left-Hand Drill Bits

- Ideal for extracting broken right hand threaded studs and bolts. • Perfect companion drill for screw extractors. • 118° point for general purpose drilling. • For use in reversible drills, lathes and milling machines.

PART NO.	DIA. (in.)	OVERALL LENGTH (in.)	FLUTE LENGTH (in.)
VA-13458	1/8	1-7/8	7/8
VA-13462	3/16	2-3/16	1-1/8
VA-13466	1/4	2-1/2	1-3/8
VA-13470	5/16	2-13/16	1-5/8
VA-13474	3/8	3-1/8	1-13/16

VA-11781

60 Piece High Speed Steel Wire Gauge Drill Bit Set in Metal Index

- Organized for accessibility in rugged steel box with hinged index. • Bit sizes clearly visible. • Wire gauge drill sizes: 1-60.

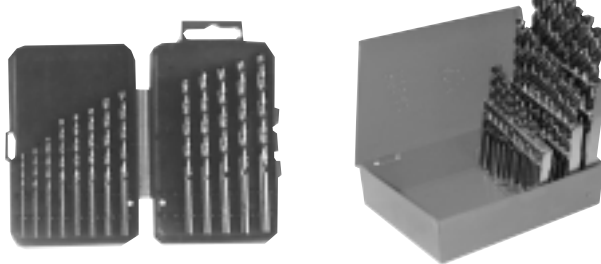
High Speed Steel Wire Gauge Drill Bits



- Jobbers length, industrial duty.
- For use where precision hole sizing is required such as tapping threaded holes.
- Wire gauge diameters fall in between fractional sizes for closed hole sizes.
- Popular taps through 1/4-28 require the use of wire gauge drill bits.
- Special high temperature surface treatment for superior wear resistance and extra long life.
- Ideal for harder carbon and alloy steels.
- 118° point for general purpose drilling.

Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)	Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)
VA-11801	1	3-7/8	2-5/8	VA-11831	31	2-3/4	1-5/8
VA-11802	2	3-7/8	2-5/8	VA-11832	32	2-3/4	1-5/8
VA-11803	3	3-3/4	2-1/2	VA-11833	33	2-5/8	1-1/2
VA-11804	4	3-3/4	2-1/2	VA-11834	34	2-5/8	1-1/2
VA-11805	5	3-3/4	2-1/2	VA-11835	35	2-5/8	1-1/2
VA-11806	6	3-3/4	2-1/2	VA-11836	36	2-1/2	1-7/16
VA-11807	7	3-5/8	2-7/16	VA-11837	37	2-1/2	1-7/16
VA-11808	8	3-5/8	2-7/16	VA-11838	38	2-1/2	1-7/16
VA-11809	9	3-5/8	2-7/16	VA-11839	39	2-3/8	1-3/8
VA-11810	10	3-5/8	2-7/16	VA-11840	40	2-3/8	1-3/8
VA-11811	11	3-1/2	2-5/16	VA-11841	41	2-3/8	1-3/8
VA-11812	12	3-1/2	2-5/16	VA-11842	42	2-1/4	1-1/4
VA-11813	13	3-1/2	2-5/16	VA-11843	43	2-1/4	1-1/4
VA-11814	14	3-3/8	2-3/16	VA-11844	44	2-1/8	1-1/8
VA-11815	15	3-3/8	2-3/16	VA-11845	45	2-1/8	1-1/8
VA-11816	16	3-3/8	2-3/16	VA-11846	46	2-1/8	1-1/8
VA-11817	17	3-3/8	2-3/16	VA-11847	47	2	1
VA-11818	18	3-1/4	2-1/8	VA-11848	48	2	1
VA-11819	19	3-1/4	2-1/8	VA-11849	49	2	1
VA-11820	20	3-1/4	2-1/8	VA-11850	50	2	1
VA-11821	21	3-1/4	2-1/8	VA-11851	51	2	1
VA-11822	22	3-1/8	2	VA-11852	52	1-7/8	7/8
VA-11823	23	3-1/8	2	VA-11853	53	1-7/8	7/8
VA-11824	24	3-1/8	2	VA-11854	54	1-7/8	7/8
VA-11825	25	3	1-7/8	VA-11855	55	1-7/8	7/8
VA-11826	26	3	1-7/8	VA-11856	56	1-3/4	3/4
VA-11827	27	3	1-7/8	VA-11857	57	1-3/4	3/4
VA-11828	28	2-7/8	1-3/4	VA-11858	58	1-5/8	11/16
VA-11829	29	2-7/8	1-3/4	VA-11859	59	1-5/8	11/16
VA-11830	30	2-3/4	1-5/8	VA-11860	60	1-5/8	11/16

SIDEWINDER™ Drill Bit Sets



- Organized for accessibility
- Metal index or molded plastic storage case.
- Bit sizes clearly visible or marked on case.
- Sizes 1/8" and above have 135° split point; 3/8" reduced shank on sizes above 3/8".

PART NO.	PIECES	DRILL SIZES
VA-12187	13	1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 11/64", 3/16", 13/64", 7/32", 15/64", 1/4" in plastic storage case
VA-12145	29	1/16" to 1/2" by 64ths in metal index

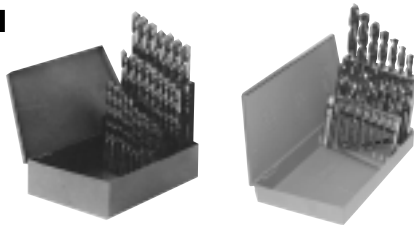
SIDEWINDER™ Drill Bits



- For fast hole drilling in steel, wood and plastics.
- Ideal for contractors and serious DIYers using 3/8" portable drills.
- Cuts cooler and drills metal, without cutting fluid.
- Specially ground speed point tip penetrates materials quickly and eliminates drill walking.
- Tips have unique side rake cutting edge for faster cutting.
- Enlarged flute chambers remove chips faster.
- Side clearance reduces friction and wear; Side margins accurately guide bit through hole; Side taper eliminates binding.
- Small diameter drills below 1/8" not split point.
- 3/8" reduced shank on sizes above 3/8".

Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)	Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)
VA-12146	1/16	1-7/8	7/8	VA-12169	19/64	4-3/8	3-1/16
VA-12147	5/64	2	1	VA-12170	5/16	4-1/2	3-3/16
VA-12148	3/32	2-1/4	1-1/4	VA-12171	21/64	4-5/8	3-5/16
VA-12149	7/64	2-5/8	1-1/2	VA-12172	11/32	4-3/4	3-7/16
VA-12150	1/8	2-7/8	1-1/2	VA-12173	23/64	4-7/8	3-1/2
VA-12159	9/64	2-7/8	1-3/4	VA-12174	3/8	5	3-5/8
VA-12160	5/32	3-1/8	2	VA-12175	25/64	5-1/8	3-3/4
VA-12161	11/64	3-1/4	2-1/8	VA-12176	13/32	5-1/4	3-7/8
VA-12162	3/16	3-1/2	2-5/16	VA-12177	27/64	5-3/8	3-15/16
VA-12163	13/64	3-5/8	2-7/16	VA-12178	7/16	5-1/2	4-1/16
VA-12164	7/32	3-3/4	2-1/2	VA-12179	29/64	5-5/8	4-3/16
VA-12165	15/64	3-7/8	2-5/8	VA-12180	15/32	5-3/4	4-5/16
VA-12166	1/4	4	2-3/4	VA-12181	31/64	5-7/8	4-3/8
VA-12167	17/64	4-1/8	2-7/8	VA-12182	1/2	6	4-1/2
VA-12168	9/32	4-1/4	2-15/16				

Cobalt Drill Bit Sets in Metal Index



- Designed for drilling stainless steel and other hard abrasive materials.
- Organized for accessibility in rugged steel box with hinged index.
- Bit sizes clearly visible.
- Sizes 1/8" and above 135° split point.

PART NO.	PIECES	DRILL SIZES
VA-12638	15	1/16" to 1/2" by 32nds
VA-12645	29	1/16" to 1/2" by 64ths

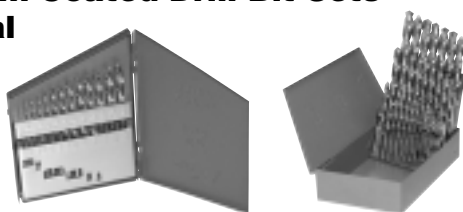
Cobalt Drill Bits



- Specifically designed for drilling stainless steel and other hard abrasive materials.
- Jobbers length; industrial duty.
- Easily withstands high drilling heat.
- 135° split point starts cutting immediately upon contact - no center punch required.
- Ideal for contractors, maintenance, machine shops, mechanics and garages.
- Small diameter drills below 1/8" not split point.

Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)	Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)
VA-12604	1/16	1-7/8	7/8	VA-12619	19/64	4-3/8	3-1/16
VA-12605	5/64	2	1	VA-12620	5/16	4-1/2	3-3/16
VA-12606	3/32	2-1/4	1-1/4	VA-12621	21/64	4-5/8	3-5/16
VA-12607	7/64	2-5/8	1-1/2	VA-12622	11/32	4-3/4	3-7/16
VA-12608	1/8	2-3/4	1-5/8	VA-12623	23/64	4-7/8	3-1/2
VA-12609	9/64	2-7/8	1-3/4	VA-12624	3/8	5	3-5/8
VA-12610	5/32	3-1/8	2	VA-12625	25/64	5-1/8	3-3/4
VA-12611	11/64	3-1/4	2-1/8	VA-12626	13/32	5-1/4	3-7/8
VA-12612	3/16	3-1/2	2-5/16	VA-12627	27/64	5-3/8	3-15/16
VA-12613	13/64	3-5/8	2-7/16	VA-12628	7/16	5-1/2	4-1/16
VA-12614	7/32	3-3/4	2-1/2	VA-12629	29/64	5-5/8	4-3/16
VA-12615	15/64	3-7/8	2-5/8	VA-12630	15/32	5-3/4	4-5/16
VA-12616	1/4	4	2-3/4	VA-12631	31/64	5-7/8	4-3/8
VA-12617	17/64	4-1/8	2-7/8	VA-12632	1/2	6	4-1/2
VA-12618	9/32	4-1/4	2-15/16				

Titanium Coated Drill Bit Sets in Metal Index



- Organized for accessibility in rugged steel box with hinged index.
- Bit sizes clearly visible.
- Sizes 1/8" and above 135° split point.

PART NO.	PIECES	DRILL SIZES
VA-12335	13	1/16" to 1/4" by 64ths
VA-12345	29	1/16" to 1/2" by 64ths

Titanium Drill Bits



- Industrial duty jobbers length bits for repetitive drilling in steel, alloy steels, wood, plastics and tough materials.
- Titanium Nitride coating - hard, golden surface treatment has a hardness in excess of 80 Rockwell C; harder than tungsten carbide.
- Titanium drills can be resharpened.
- 135° split point starts cutting immediately upon contact - no center punch required.
- Small diameter drills below 1/8" not split point.

Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)	Part No.	Wire Gauge	Overall Length (in.)	Flute Length (in.)
VA-12354	1/16	1-7/8	7/8	VA-12369	19/64	4-3/8	3-1/16
VA-12355	5/64	2	1	VA-12370	5/16	4-1/2	3-3/16
VA-12356	3/32	2-1/4	1-1/4	VA-12371	21/64	4-5/8	3-5/16
VA-12357	7/64	2-5/8	1-1/2	VA-12372	11/32	4-3/4	3-7/16
VA-12358	1/8	2-3/4	1-5/8	VA-12373	23/64	4-7/8	3-1/2
VA-12359	9/64	2-7/8	1-3/4	VA-12374	3/8	5	3-5/8
VA-12360	5/32	3-1/8	2	VA-12375	25/64	5-1/8	3-3/4
VA-12361	11/64	3-1/4	2-1/8	VA-12376	13/32	5-1/4	3-7/8
VA-12362	3/16	3-1/2	2-5/16	VA-12377	27/64	5-3/8	3-15/16
VA-12363	13/64	3-5/8	2-7/16	VA-12378	7/16	5-1/2	4-1/16
VA-12364	7/32	3-3/4	2-1/2	VA-12379	29/64	5-5/8	4-3/16
VA-12365	15/64	3-7/8	2-5/8	VA-12380	15/32	5-3/4	4-5/16
VA-12366	1/4	4	2-3/4	VA-12381	31/64	5-7/8	4-3/8
VA-12367	17/64	4-1/8	2-7/8	VA-12382	1/2	6	4-1/2
VA-12368	9/32	4-1/4	2-15/16				

UN-10

Unibit® Single Hole Size



- For reaming, deburring and cutting through soft wood or plasterboard; ideal for rustproofing applications.
- Perfectly round holes for oil tight push button switches, pilot lights and knockouts for conduit.
- Fractional, self-starting, even on curved surfaces.
- Excellent on materials that often crack with standard twist drills.
- Hole size: 1/2".
- Shank size: 1/4".

UN-20

Unibit® Hole-Enlarging Bit



- Fractional step drill for reaming, deburring or enlarging medium-sized holes.
- Proper hole size is achieved by simply counting the steps as they penetrate the work.
- Number of holes: 8.
- Hole Sizes: 9/16" thru 1" in 1/16" increments.
- Step Thickness: 1/8".
- Shank Size: 1/2".
- Requires 1/2" pilot hole.

Unibit® Step Drills



- Non-skid self-starting tip eliminates skidding and need for center punching and provides sure starts, even on curved surfaces.
- Multiple steps in a single bit; fractional.
- 3 flatted shank prevents slipping in chuck.
- Single-fluted cutting edge helps assure true round holes and allows greater control with less vibration.
- Laser marked sizes.
- Hardened industrial grade high speed molybdenum steel for long life.

PART NO.	NO. OF HOLES	HOLE SIZES/ INCREMENTS(in.)	STEP DEPTH (in.)	SHANK (in.)
UN-1	13	1/8 thru 1/2 in 1/32 increments	1/8	1/4
UN-3	9	1/4 thru 3/4 in 1/16 increments	1/8	3/8

UN-15101

Titanium Coated

Unibit® Step Drill

- Easy to sharpen, non-skid tip eliminates skidding and need for center punching and provides sure starts, even on curved surfaces.
- 13 multiple steps in a single bit; fractional.
- 3 flatted shank prevents slipping in chuck.
- Single-fluted cutting edge helps assure true round holes and allows greater control.
- Hardened industrial grade high speed molybdenum steel with titanium nitride coating for less friction to increase product life.
- Hole sizes: 1/8" thru 1/2" in 1/32" increments.
- Shank size: 1/4".
- Maximum material thickness (step depth): 1/8".



UN-10502

3 Piece Unibit® Step Drill Set

- Easy to sharpen, fractional self-starting UNIBIT® HSS step drills.



Set consists of the following:

PART NO.	DESCRIPTION
UN-1	13 holes sizes, 1/8" to 1/2" in 1/32" increments
UN-2	6 hole sizes, 3/16" to 1/2" in 1/16" increments
UN-3	9 hole sizes, 1/4" to 3/4" in 1/16" increments

DF-8

Quarter Inch Hole Punch



- Using just one hand, this lightweight hole punch will punch a 1/4" (6.5mm) hole in cosmetic panels quickly and easily.
- Depth of the throat allows a plug to be punched 1-1/4" into the panel.
- Punch is easily replaceable.



WARNING!

Wear safety goggles.

Disconnect power tools before changing chuck or bits.

BE-11090

Rotabroach® Cutter Kit



- Create 5/16" to 3/4" access holes for rustproofers, installing trailer hitches and luggage racks, cutting antenna holes in material up to 1/4" thick.
- For hand-held drills with 1/4", 3/8" and 1/2" chucks.
- Set includes seven cutters, arbor assembly, extra pilot, center punch, hex wrench and washers.

PART NO.	DESCRIPTION
BE-11122	Arbor with 3/8-24 cutter mounting thread
BE-11104-3	5/16" Cutter
BE-11108-3	3/8" Cutter
BE-11112-3	7/16" Cutter
BE-11116-3	1/2" Cutter
BE-11120-3	9/16" Cutter
BE-11124-3	5/8" Cutter
BE-11132-3	3/4" Cutter

BE-11034 Ejector Spring/BE-11122

BE-11055 Stop Washer/BE-11122

BE-11121 Ejector Pilots/BE-11122

SH-77778

4 Piece Spotweld Cutter Kit

- Use in electric or a pneumatic drill.
- Self centering points.
- Quick, easy drilling.



Set consists of the following in a clear plastic box:

PART NO.	DESCRIPTION
SH-77774	1/4" Spotweld Cutter
SH-77775	5/16" Spotweld Cutter
SH-77776	3/8" Spotweld Cutter
SH-77777	1/2" Spotweld Cutter

WI-TH-25.000

"SPOT-EZE"

Spot Weld Drill Kit

- Remove spot weld without pre-drilling or pre-punching.
- Resharpens easily.
- Replaceable center starting drill allows main drill body to start quickly.
- Will not walk off the spot weld area.
- Made of high speed steel.



Comes with the following in a vinyl roll:

PART NO.	DESCRIPTION
WI-TH-25.001	5/16" - 2" Drill
WI-TH-25.002	3/8" - 2" Drill
WI-TH-25.003	5/16" - 3" Drill
WI-TH-25.004	3/8" - 3" Drill
WI-TH-25.005	Center Drill (4)

THE SIX MAJOR POINTS OF HAND TOOL SAFETY

1. Wear approved eye protection.
2. Choose the right tool for the job.
3. Do not alter a tool in any way, shape, or form.
4. Never abuse or misuse tools.
5. Never exceed tool capacity.
6. Do not use a tool that appears to be damaged or weakened.

HL-36-386110

Mechanic's Hole Saw Kit

- For installing locks, antennas, hoses, etc.
- Packed in high-impact polyethylene case.
- Contains five bi-metal hole saws: 7/8", 1", 1-1/8", 1-1/4", 1-1/2", one 1/4" arbor and one 1/4" arbor adapter.



HL-36-270000

Journeyman's Hole Saw Kit

- Kit is designed to meet the needs of electricians, plumbers, and general maintenance personnel.
- Nine bi-metal hole saws, two arbors, an arbor adapter, and one pilot drill.
- Kit Contents: one each 3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2" hole saws, one 1/4" round arbor, one 7/16" hex pin drive arbor, one 1/4" arbor adaptor, and one 1/4" pilot drill in a durable plastic case.



High Speed Hole Saws

- Recommended for cutting steel, cast iron, aluminum, copper, brass, stainless steel, wood or plastics.
- Standard with a 4-6 TPI variable pitch configuration.
- Bi-metal blades are made with a high-speed steel edges that features high hardness at the tips of the teeth for greater wear resistance.
- Feature a steel cap designed to allow the saw to follow through the hole.
- Knock-out slots for easy removal of cores.



PART NO.	DIAMETER	USE ARBOR NO.
HL-36-001200	3/4"	HL-36-010000
HL-36-001400	7/8"	HL-36-010000
HL-36-001600	1"	HL-36-010000
HL-36-001800	1-1/8"	HL-36-010000
HL-36-002000	1-1/4"	HL-36-010150
HL-36-002200	1-3/8"	HL-36-010150
HL-36-002400	1-1/2"	HL-36-010150
HL-36-002800	1-3/4"	HL-36-010200
HL-36-003200	2"	HL-36-010200
HL-36-003600	2-1/4"	HL-36-010200
HL-36-004000	2-1/2"	HL-36-010200

Arbors

- Special split point centering feature which insures an easy start in work.



PART NO.	SHANK SIZE/TYPE	THREAD SIZE	FITS CHUCK SIZE	FITS SAW (DIA./IN.)
HL-36-010000	1/4"/Round	1/2"-20	1/4"	9/16" to 1-1/2"
HL-36-010020	1/4"/Hex	1/2"-20	1/4"	9/16" to 1-1/2"
HL-36-010150	7/16"/Hex	5/8"-18	1/2"	1-1/4" to 2-3/8"
HL-36-010200	7/16"/Hex	5/8"-18	1/2"	1-1/4" to 4"

Pilot Drills

- Replacement drills for standard arbors.



PART NO.	O.A. LENGTH	FOR ARBOR NO.
HL-36-015150	3"	HL-36-010020
HL-36-015180	4"	HL-36-010000, HL-36-010150, HL-36-010200

HL-36-010350

1/4" Arbor Adapter

- Converts 1/2"-20 threaded arbors (HL-36-010000, HL-36-010020) to 5/8"-18 thread size to accommodate larger diameter saws.
- Not recommended for use with saws above 1-1/2" diameter.



Circular Flared End Carbon Stem Mounted Brushes

- Highest quality oil tempered steel wire, densely filled for long life.
- For weld cleaning, mold cleaning, deburring, spot facing, rust and paint removal and polishing of tools, dies and molds.
- 1/4" Stem diameter.
- .020 Wire Size.
- 7/8" Trim Length.



PART NO.	DESCRIPTION	MAX. SAFE FREE SPEED
AN-05891	1-1/2" Diameter	20,000 RPM
AN-06071	3" Diameter	15,000 RPM

Solid End Carbon Wire End Brushes

- High quality oil tempered steel wire.
- Densely filled for long life.
- For weld and mold cleaning, deburring, polishing tools, dies and molds, spot facing, and removing rust and paint.
- 1/4" Stem diameter.
- .020 Wire Size.
- 7/8" Trim length.
- Maximum Safe Free Speed: 20,000 RPM.



PART NO.	DESCRIPTION
AN-07041	3/4" Diameter
AN-07141	1" Diameter

Single Section Flared Cup Carbon Stem Mounted End Brushes

- For I.D. cleaning; more flexible than non-flared single sections.
- Less aggressive and conform to irregular surfaces better.
- 1/4" Stem Diameter.
- Maximum Safe Free Speed: 20,000 RPM.



PART NO.	DESCRIPTION
AN-08725	2" Diameter; .008 Wire Size
AN-09065	3" Diameter; .014 Wire Size

AN-05531

Encapsulated Stem Mounted End Brush

- Encapsulated wires for more aggressive action, safety and longer life.
- 2" Diameter.
- 1/4" Stem Diameter.
- .010 Wire Size.
- 20,000 RPM Maximum Free Speed.



AN-06651

2-3/4" Stem Mounted Wire Cup Brush



- Applications include weld cleaning, mold cleaning, deburring, polishing tools, dies and molds, removing rust and paint, spot facing.
- Quality oil tempered steel wire.
- Densely filled.
- Wire size: 0.118
- Stem diameter: 1-1/4"
- Trim length: 7/8"
- Maximum Safe Free Speed: 6,000 RPM.

AN-10175

2-3/4" Crimped Wire Cup Brush



- Applications include heavy duty cleaning of large surfaces, weld scale removal, deburring, edge blending and roughing.
- Rugged, fast cutting action.
- Quality oil tempered stainless steel wire.
- Safety designed cups.
- Smooth performance at high speeds.
- Wire size: .014
- Trim Length: 3/4"
- Arbor Hole: 5/8 - 11"
- Maximum Safe Free Speed: 12,500 RPM.

Knot End Brushes

- Applications include weld cleaning, mold cleaning, deburring, spot facing, rust and paint removal and the polishing of tools, dies and molds.
- High quality tempered steel wire.
- Superior knot construction is densely filled resulting in a longer brush life.
- Wire size: .020
- Trim length: 7/8"
- Max. Safe Free Speed: 20,000 RPM; However, speeds over 8,000 RPM do not appreciably enhance the operation.



PART NO.	DESCRIPTION
AN-10931	3/4" Knot End Brush
AN-12081	1-1/8" Knot End Brush

AN-18215

2-3/4" Hurricane Cable Twist Cup Brush



- Used for weld cleaning, rust and scale removal and other rough applications.
- Innovative wire twist construction enables the brush to work more aggressively and last longer with a smoother operation for less operator fatigue.
- Wire size: .020
- Trim length: 3/4"
- Arbor Hole: 5/8 - 11"
- Maximum Safe Free Speed: 12,500 RPM.

SG-CB8S

8 Piece Solid Carbide Bur Set

- Bit heads are made from solid carbide design for use with 1/4" high speed power grinders.
- Clean up burrs on cast iron or sheet metal.
- Bits have chipbreaker cut to provide break down in chips.



Consists of the following in an oak box:

PART NO.	DESCRIPTION
SG-SA-1	1/4" x 1/4" Cylinder
SG-SA-5	1/4" x 1/2" Cylinder
SG-SC-1	1/4" x 1/4" Cylinder/Radius
SG-SC-5	1/4" x 1/2" Cylinder/Radius
SG-SE-5	1/4" x 1/2" Oval
SG-SF-5	1/4" x 1/2" Tree
SG-SL-4	1/4" x 1/2" Taper
SG-SM-5	1/4" x 1/2" Cone

SG-CB17DISP

17 Piece Acrylic Display



- Set consists of the following in a clear, acrylic display case:

PART NO.	DESCRIPTION
SG-SA-1	Cylinder Shape Solid Carbide Bur
SG-SA-5	Cylinder Shape Solid Carbide Bur
SG-SC-1	Cylinder Shape w/Radius End Solid Carbide Bur
SG-SC-3	Cylinder Shape Bur
SG-SC-5	Cylinder Shape w/Radius End Solid Carbide Bur
SG-SD-3	Ball Shape Bur
SG-SE-5	Oval Shape Solid Carbide Bur
SG-SF-3	Tree Shape Carbide Bur
SG-SF-5	Tree Shape Radius End Solid Carbide Bur
SG-SG-1	Tree Point End Bur
SG-SG-3	Tree Point End Bur
SG-SL-3	Taper Radius Carbide Bur
SG-SL-4	14° Taper Radius End Solid Carbide Bur
SG-SM-5	Cone Shape (28° Taper) Solid Carbide Bur
SG-SD-3NF	Ball Shape Aluminum Non-Ferrous Bur
SG-SF-5NF	Tree Shape Aluminum Non-Ferrous Bur
SG-SL-3NF	Taper Radius Aluminum Non-Ferrous Bur

SG-CB3AL

3 Piece Aluminum Non-Ferrous Bur Set

- For use on aluminum, non-ferrous metals, plastics, or soft materials.



Set consists of the following in a vinyl pouch kit:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SG-SD3NF	Ball Shape	SG-SL3NF	Taper Radius
SG-SF5NF	Tree Shape		

SG-CB4P

4 Piece Bur Set

- For use on steel, cast iron, and ferrous metals.



Set consists of the following in a vinyl pouch kit:

PART NO.	DESCRIPTION
SG-SA-1	Cylinder Shape Solid Carbide Bur 1/4" x 1/4"
SG-SF-3	Tree Shape Carbide Bur 1/4"x 3/8"
SG-SL-3	Taper Radius Carbide Bur 1/4" x 3/8"
SG-SC-5	Cylinder Shape w/Radius End Solid Carbide Bur 1/4"x1/2"

SG-CB3LSS

3 Piece 6" Long Bur Set

- Long shank carbide burs. • For use on steels, cast iron, and ferrous metals.



Set consists of the following in a vinyl pouch:

PART NO.	DESCRIPTION
SG-SC-3L6	6" Long Steel Bur
SG-SE-3L6	6" Long Steel Bur
SG-SF-3L6	6" Long Steel Bur

SG-CB3LSA

3 Piece 6" Long Non-Ferrous Bur Set

- Long shank carbide burs. • For use on aluminum, non-ferrous metals, or soft materials.



Set consists of the following in a vinyl pouch:

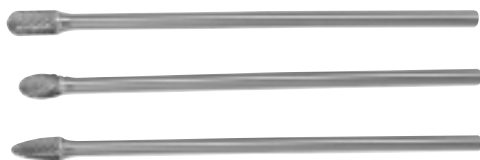
PART NO.	DESCRIPTION
SG-SC-3NFL6	3/8" Dia. x 3/4" Cylinder Bur
SG-SE-3NFL6	3/8" Diameter Oval Bur
SG-SF-3NFL6	3/8" Diameter Tree Shaped Bur

6" Long Shank Solid Carbide Burs



Part Number	Shank	Head Dia.	Length of Cut	Shape
SG-SC-3L6	1/4"	3/8"	3/4"	Cylinder with Radius End
SG-SE-3L6	1/4"	3/8"	5/8"	Oval
SG-SF-3L6	1/4"	3/8"	3/4"	Tree with Radius End

6" Long Shank Non-Ferrous Solid Carbide Burs



Part Number	Shank	Head Dia.	Length of Cut	Shape
SG-SC-3NFL6	1/4"	3/8"	3/4"	Cylinder
SG-SE-3NFL6	1/4"	3/8"	5/8"	Oval
SG-SF-3NFL6	1/4"	3/8"	3/4"	Tree

Cylinder Shape Solid Carbide Burs



Part Number	Shank	Head Dia.	Length of Cut	Maximum RPM Cast Iron	Maximum RPM Stainless
SG-SA-1	1/4"	1/4"	5/8"	22,000	33,000
SG-SA-5	1/4"	1/2"	1"	16,000	24,000

Cylinder Shape with Radius End Solid Carbide Burs



Part Number	Shank	Head Dia.	Length of Cut	Maximum RPM Cast Iron	Maximum RPM Stainless
SG-SC-1	1/4"	1/4"	5/8"	22,000	33,000
SG-SC-3	1/4"	3/8"	3/4"	20,000	24,000
SG-SC-5	1/4"	1/2"	1"	16,000	24,000

SG-SD-3

Ball Shape Solid Carbide Bur



- 1/4" shank x 3/8" head diameter. • Length of cut: 5/16". • Maximum RPM: Cast iron - 20,000; Stainless - 24,000.

SG-SE-5

Oval Shape Solid Carbide Bur



- 1/4" shank x 1/2" head diameter. • Length of cut: 7/8". • Maximum RPM: Cast iron - 16,000; Stainless - 24,000.

SG-SF-5

Tree Shape Radius End Solid Carbide Bur



- 1/4" shank x 1/2" head diameter. • Length of cut: 1". • Maximum RPM: Cast iron - 16,000; Stainless - 24,000.

Tree Point Solid Carbide Burs



Part Number	Shank	Head Dia.	Length of Cut	Maximum RPM Cast Iron	Maximum RPM Stainless
SG-SG-1	1/4"	1/4"	5/8"	22,000	30,000
SG-SG-3	1/4"	3/8"	3/4"	20,000	24,000

SG-SL-4

14° Taper Radius End Solid Carbide Bur



- 1/4" shank x 1/2" head diameter. • Length of cut: 1-1/8". • Maximum RPM: Cast iron - 16,000; Stainless - 24,000.

SG-SM-5

Cone Shape (28° Taper) Solid Carbide Bur



- 1/4" shank x 1/2" head diameter. • Length of cut: 7/8". • Maximum RPM: Cast iron - 16,000; Stainless - 24,000.

CSE-PRK400

Cornwell

4 Ton Portable Ram Kit with Case

- Complete starter set.
- Powerful heavy duty ram cylinder.
- Spreader ram standard.
- New blow molded storage case.
- Shipping weight: 50 lbs.

Set consists of the following components:

Hand Pump	Rubber Head	1/2 Ton Wedge Head
Hose	Rubber Faced Flat Base	90° V-Base
Cylinder Ram	Ram Toe	Serrated Saddle
Spreader Ram	Plunger Toe	Male Thread Adaptor
	Assorted Extension Tubes	

CSE-PRK-4TP Replacement 4 Ton Pump and Hose

CSE-PRK-4TR Replacement 4 Ton Ram



CSE-PRK1000

Cornwell

10 Ton Portable Ram Kit with Case

- Complete starter set.
- Spreader ram standard.
- Blow molded storage case with wheels.
- Shipping weight: 83 lbs.

Set consists of the following components:

Hand Pump	Rubber Head	1/2 Ton Wedge Head
Hose	Rubber Faced Flat Base	90° V-Base
Cylinder Ram	Ram Toe	Serrated Saddle
Spreader Ram	Plunger Toe	Male Thread Adaptor
	Assorted Extension Tubes	

CSE-PRK-10TP Replacement 10 Ton Pump and Hose

CSE-PRK-10TR Replacement 10 Ton Ram



CSE-PRK-2S

Cornwell

4 Ton Portable Ram Kit with 2 Stage Pump

- **Two stage pump.**
- Complete starter set.
- Powerful heavy duty ram cylinder.
- Spreader ram standard.
- Blow molded storage case.

Set consists of the following components:

Hyd. Hand Pump	Male Connector	Spreader Plunger Toe
1/4", 3/8", 5 Hose	Flat Base	Spreader Ram Toe
4 Ton 6" Ram	90° V-Base	Flex Head
Spreader Ram	Wedge Head	Spreader Saddle
	16", 12", 8", 4" Extension Tubes	



WARNING!

Wear safety goggles. Read operating instructions thoroughly before using tools.

POF-SM0014T

4 Ton Telescoping Mini-Ram



- Rugged, versatile, two-stage, low profile, extra-short ram.
- Access remote or restricted spaces where a little extra bit of piston travel/extension is needed.
- Drop forged base has angled port for minimizing hydraulic connection problems; delivers stable footing.
- Quick disconnect couplings.
- Ram cylinders and pistons made from tool steel.
- Ring keeps out seal damaging dirt.
- Special U-cup packings for longer life, sealing and easy repair.

Retracted Height: 2-5/16".
 1st Stage Extended Height: 3-5/16".
 2nd Stage Extended Height: 4-5/16".
 Outer piston diameter: 1-3/16".
 Inner piston diameter: 5/8".
 Weight: 1-1/2 lbs.

AG-72A

Power-Pull Tool



- Capacity: 1 ton hoisting; 2 ton pulling.
- 6 ft. lift.
- 3/16" galvanized aircraft cable.

AG-8144 Repl. Cable (Ball Type End) for AG-72A - 3/16" diameter cable assembly - 12 ft. long.

SH-77043

4 Piece Jack Set



- Versatile tool - pushes, pulls, aligns, spreads, straightens.
- 55" long solid alloy 3/4" rod eliminates need for extension tubes.
- Friction jack has 5 hardened friction plates for minute adjustments - up to 3000 lbs. push/pull power.
- Multiple position handle for hard to reach areas.
- Made in U.S.A.

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SH-77044	Jack Head	SH-77046	Multi-Purpose Hook
SH-77045	Friction Rod	SH-77047	Extension Handle

SH-77175

Hustler Stick



- Indispensable when versatility of a chain hookup is needed.
- Aligns bumpers, panels, hoods, decks and brackets.
- Heavy duty 1-1/4" diameter tubing with two welded hooks for strength and versatility.
- 1/4" chain, 6' long, hooks on both ends.

POF-BU0190

BITE-TITE™ Clamp

- Pulls narrow lips and seams, as well as work around flanges, channels, beads and corners.
- Use with **POF-PF0007** 4-Ton Speed-Midget®.
- Heat-treated forged steel jaws and link.
- Easily reversible jaws.
- Combination tooth design for firm, positive gripping.
- 100% made in the U.S.A.



POF-BU0290

All-Angle Clamp

- Use with **POF-PF0007** 4-Ton Speed-Midget®.
- Heat-treated forged steel jaws and pull plate.
- Cross-hatch tooth design.
- All-angle pulling.
- Deep throat design easily fits over flanges.
- High strength heat-treated bolts.
- 100% made in the U.S.A.



DD-UAC092

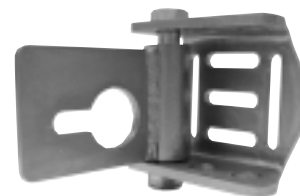
Adjustable Frame Puller



- Used as a universal multi-hole pull clamp and for unibody cars with bumper reinforcements.
- Slides into and bolts to the front or rear frame rails; Can be attached and adjusted to the two or more existing holes in the frame rails or rear floor pan for pull.
- For use on GM front and rear rails, Ford front and rear rails, Honda front and rear rails, VW front and rear rails, and Toyota rear rails.
- This one clamp can replace up to 12 or more individual clamps currently on the market!
- Designed for 4 ton pulling applications - DO NOT EXCEED!

DD-UAC093

Door Frame Puller



- Designed for pulling door posts in the door hinge area.
- Mounting holes are elongated for multiple application.
- Tongue has an offset hole which is reversible.
- U-channel piece has 3 off-centered holes for adjustments, adding up to six different possible pulling angles.
- Swivels 180°.
- Can also be used on the following rail applications: Mercedes front and rear, Chrysler rear, GM rear, Ford Escort front and rear.
- Can also be used on a flat surface with two or more bolt holes for pulling straight and at an angle.
- For up to 4 ton pulling applications.



WARNING!

Wear safety goggles.

Read operating instructions thoroughly before using tools.

Wide BITE-TITE™ Clamps

POF-CL0190



POF-CL0290



POF-CL1190



POF-CL1290



- Designed to easily fit over or work around flanges, frame horns, lips, channels, beads and corners.
- Rugged ADI (austempered ductile iron, grade 3) cast jaws for more strength and greater wear resistance.
- Pull ring and eye bolt made of heat-treated, forged, alloy steel.
- Features a machined cross-hatch tooth design for a firm, positive grip.
- Grade 8 high strength heat treated bolts.
- Self-tightening, spring loaded for easy operation.
- Built-in, tapped, 90° anchor point.
- Swivel pull ring minimizes chain twist.

PART NO.	CAP.	WIDTH	DEPTH	LENGTH	WEIGHT
POF-CL0190	3 Ton	1-3/8"	13/16"	7-1/2"	2-3/8 lbs.
POF-CL0290	3 Ton	1-1/2"	5/8"	6-7/8"	2-1/2 lbs.
POF-CL1190	6 Ton	2-1/4"	13/16"	9-1/4"	5-3/4 lbs.
POF-CL1290	6 Ton	2-1/4"	11/16"	9-3/8"	7 lbs.

Small Frame Gripper Clamps

POF-CL0390



POF-CL0390SP



- ADI (austempered ductile iron) cast jaws for extra strength and greater wear.
- Cross-hatch tooth design.
- Grade 8 high strength heat treated bolts.
- Shell molded cast jaws for consistent, uniform and superior quality castings.
- Spring loaded.
- "Captured" bolt heads for easy tightening.
- **POF-CL0390SP** has side pull adapter.

PART NO.	CAP.	WIDTH	DEPTH	WEIGHT
POF-CL0390	5 Ton	3-3/4"	1/2"	3 lbs.
POF-CL0390SP	5 Ton	3-3/4"	1/2"	3-3/4 lbs.



WARNING!

Wear safety goggles. Make sure all pullers are mounted straight and properly seated. Read operating instructions thoroughly before using tools.

POF-CL0690

Extended Nose Bite-Tite™ Clamp



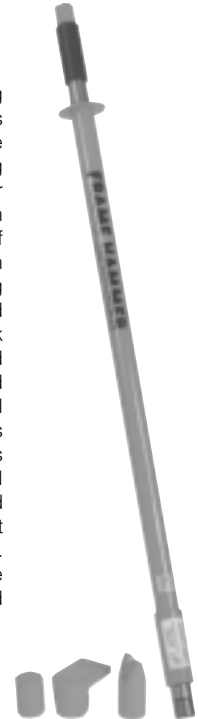
- Versatile, self-tightening clamp.
- ADI (austempered ductile iron) cast jaws.
- Extended "long" nose design for reaching confined areas.
- Contoured and relieved dovetail cavity promoting greater surface area contact with pull ring insuring a smoother pull.
- Machined cross-hatch tooth design for firm, positive gripping- 70 individual teeth.
- Gripping surface: 1-1/4" wide x 27/32" deep.
- Heat treated swivel pull ring, shell molded cast jaws, spring loaded, captured bolt head, powder coat painted.
- Capacity: 3 tons.
- Overall length: 8".
- Weight: 2 pounds 5 ounces.
- Throat clearance: 1/4".

SSL-FH10

Frame Hammer™

- Applications include: Knock out bushings using serrated tip; Drive out bushings on control arms and front engine cradles using serrated or wedge tip; Shear off rusted or stripped bolt heads using wedge tip; Knock out U-joints on semi trucks, rear drive shaft using the serrated end; Knock off pitman arms using serrated or plunger toe; Knock off yolks using serrated tip; Loosen brake drums on trailers when brakes lock up or are frozen using any of the 3 standard tips; Drive off bushings and drive axle removal using the serrated tip; Knock out roll pins on front end loaders and rear end buckets and remove dowel pins on front end loaders using serrated tip; Remove and install pins on tracks using serrated or plunger tip.
- Has the impact force of a 12 lb. sledge and delivers the impact with pinpoint accuracy.
- Increased safety.
- Great for all metals.
- Conventional and uni-body.
- Reaches inside tight spots to beat out kinks and dents on the inside part of the frame rail.
- Eliminates secondary damage.
- Includes the Frame Hammer™ tool, plunger toe, wedge head and serrated saddle.

- SSL-FH10T-1** Plunger Toe
- SSL-FH10T-2** Wedge Head
- SSL-FH10T-3** Serrated Saddle



PI-3100

4 Piece Sheet Metal Hooks Set



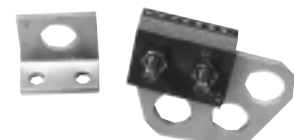
- Alloy heat treated hooks increase pulling options.
- Use for pulling or in combination with clamps.
- Weight: approximately 2 lbs. each; Capacity: 2 tons.

Set consists of the following Part Numbers and sizes:

PI-3110	Small Flat Nose	PI-3130	Large Flat Nose
PI-3120	Small Round Nose	PI-3140	Large Round Nose

PI-4050

Multi-Angle Clamp



- Pull from any direction in a 180° arc.
- Plate makes two-way pulling easier.
- Hardened gator teeth grip narrow seams and pinch welds firmly.
- Gripping surface: 3-3/4" wide, 3/4" deep.
- Length: 7".
- Weight: 8 lbs.
- Capacity: 4 tons.

SH-77116

Heavy Duty Twin Chain Hooks

- For easy 3/8" chain connection. • Ideal for chain shortening or power pull work. • All hooks are heat treated and plated alloy steel. • Made in U.S.A.



PI-4145

Double Grab Hook Assembly

- For easy 3/8" connection. • Overall Length: 8-3/4". • Weight: 3 lbs. • Capacity: 10 tons.



PI-6306

GM "R" Tie-Down Hook, 3/8" Chain

- Fits existing tie-down holes in vehicles. • Overall Length: 11". • Weight: 2 lbs. • Capacity: 5 tons.



PI-6311

Ford "T" Tie-Down Hook, 3/8" Chain

- Fits existing tie-down holes in vehicles. • Overall Length: 12". • Weight: 2 lbs. • Capacity: 5 tons.



JS-423110

Door and Trunk Lock Reforming Tool

- Reforms damaged lock openings, both recessed and flush, to original contour. • Fits GM, Ford, Chrysler, and most foreign cars.



PI-0100

B® Clamp

- Self-tightening; for hard pulls on metal or frame; Capacity: 6 tons. • Original straight cut tooth design. • 2-1/4" wide, 1" deep jaw bite. • Length: 9-1/2"; Weight: 7 lbs.



PI-0200

C® Clamp

- Self-tightening; original wedge, straight cut tooth design. • 1-1/2" throat clearance fits over flange or frame horn or around a lip to pull from behind. • Gripping surface: 2" wide, 5/8" deep. • Length: 8-1/2"; Weight: 7 lbs. • Capacity: 6 tons.



PI-0300

Jr® Clamp

- Self-tightening; Capacity: 5 tons. • 1-1/2" wide, 3/4" deep jaw bite with angled tooth design; original wedge. • Length: 9"; Weight: 5 lbs.



PI-0400

W® Clamp

- Self-tightening; original wedge, straight cut tooth design. • 4-1/4" wide, 1" deep jaws for ultra wide gripping surface. • Length: 9-1/2"; Weight: 11 lbs. • Capacity: 6 tons.



PI-1450

Numerous Angle Puller (NAP)™

- Allows pulls from any angle. • Put bolt through a 1/2" hole and pull. • Use with multi-adapter plate or back-up plates; for use with 3/8" chain. • Length: 6"; Weight: 2 lbs. Capacity: 4 tons.



PI-4110

Single Claw Hook

- Drop forged; use with 3/8" chain. • Use a pair with triangle or oval loop as chain shortener, double hook, bumper hook. • Length: 5". • Weight 2 lbs. • Capacity: 7 tons.



PI-4120

Double Claw Hook

- Use as chain shortener, chain connector or double hook. • Use with 3/8" chain. • Length: 5". • Weight: 2 lbs. • Capacity: 7 tons.



SM-20055

Fender Fixer

- Used to roll bent fender tops back in to shape.



SM-20022

Quarter Puller

- Pulls rear quarter and wheel well. • Hooks above lips of wheel opening. • Two curvatures (one on each side) will fit almost all cars. • Easier, faster than clamps or jacks. • 3000 lbs. maximum pull.



SM-20033

Quarter Puller II

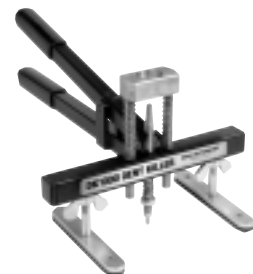
- Pulls tail light openings, radiator supports, pillars, etc. • Two curvatures (one on each side) will fit almost all cars. • Easier, faster than clamps or jacks. • Pulls without bulging.



HS-DK1000

Dent Killer

- Works with all UNI-SPOTTER Stud Welders (all stud welders work on 110 volts). • Works great to restore body lines. • Quick and easy to use. • Lightweight and portable for out-of-position pulls. • Dents are levered out using only the required amount of pull to leave a flat surface. The Dent Killer is then rotated around the weld to release the electrode, leaving a flat, workable surface. • Feet are adjusted closer together for smaller dents or further apart to accommodate larger dents or body contours.



HS-DK8004 Replacement Welding Tips (package of 4)

HS-4500

Stud Welding Starter Kit

- Stud weld on high strength and galvanized steels with ease.
- Super sensitive trigger in handle for one handed operation.
- Built-in overload protection.
- Grounded 3 Wire cable.
- Easy to use POSI-CAM slidehammer.

HS-1000 "Sure Shot-Blackhead" Welding Studs 2.0MM

HS-1001 "Flexpert" Welding Studs 2.2MM



HS-9000

Stud Welding Deluxe Kit

- Weld OEM mold clip with mold rivet tip; shrink high spots with shrink tip.
- Uni-Clamp is dual sided; use narrow 5 hole side for tight areas, 11 hole wide side for larger pulls.
- Includes Uni-Spotter Deluxe Gun, Slidehammer, Mini-Pull'r, Eliminator Side-by-Side Adaptor, Studs, Mold Rivets, Stud Welding Tip, Mold Rivet Tip and Shrink Tip.

HS-1000 "Sure Shot-Blackhead" Welding Studs 2.0MM

HS-1001 "Flexpert" Welding Studs 2.2MM



HS-1095

Mini PULL'R

- Allows user to "feel the pull".
- Eliminates overpulling.
- One handed operation.
- Quick release cam.



HS-5500

Stinger Plus Stud Welder Kit

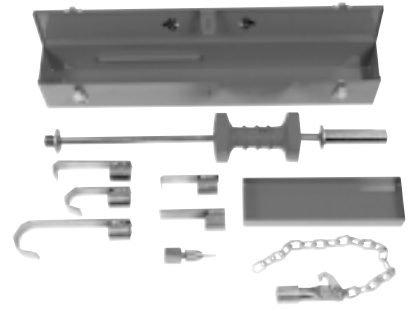


Kit consists of the following in a custom molded box:

PART NO.	DESCRIPTION
HS-1000	Blackhead Studs
HS-1001	Flexpert Studs
HS-1003	Mold Rivets
HS-1004	Stud Tip
HS-1005	Mold Rivet Tip
HS-1007	Shrink Tip
HS-1016	Deluxe Slidehammer
HS-1040	Eliminator
HS-1095	Mini Pull'r
HS-5590	Stud Gun

SH-77081

Twelve Pound Kicker Set (Boxed)



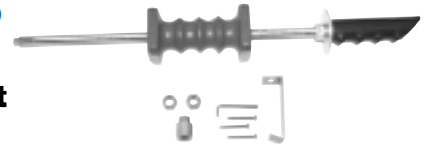
- 12 lb. dent puller set.
- Square slide hammer does not roll out of reach.
- Solid 5/8" high carbon steel slide shaft.
- All attachments are heat treated and plated.
- 3/4" pipe end nose adapter is machined and plated.
- Hex broached nose piece.
- Heavy gauge steel red enamel full hinged storage box.
- Made in U.S.A.

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SH-77068	Hammer and shaft	SH-77073	Hook and Chain
SH-77069	Claw	SH-77074	Straight Driver
SH-77070	Short Hook	SH-77075	Nose Piece
SH-77071	Deep Hook	SH-77080	Tool Box
SH-77072	Door Edge Tool		

SH-77085

Five Pound Dent Puller Set



- Sure grip handle with square hammer design.
- Solid shaft with all attachments fully plated.

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SH-77086	Hammer and Shaft	SH-77089	"L" Puller & Screw (2)
SH-77088	Nose Piece	SH-77090	Door Edge Tool and Nut (2)

SH-77087-10PK Sheet Metal Screws

SH-77149

Golden Spike



- Finish ground point for easy metal piercing.
- Eliminates pre-drilling.
- Tapered for use in smaller holes.
- Grips metal securely without slipping.
- Heat treated, rust resistant finish.
- 3/8-24 thread.
- Made in U.S.A.

SH-77140

Golden Spike Adaptor

- 1/2-20 (1/2 Fine).
- Used with SH-77149 Golden Spike.



WARNING!

Make sure all pullers are mounted straight and properly seated. Do not use eyebolt of the G-clamps for pulling. Use frame holes only.

ZZ-BT4S

4 Piece Body Tool Set



Consists of the following in a foam tray:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
SH-55107	Large Heel Dolly	SH-55370	Straight Shrinking Hammer
SH-55368	Curved Finishing & Grooving Hammer	SH-55501	Slapping Spoon

ZZ-FBT4S

4 Piece Fiberglass Handle Body Tool Set



Consists of the following in a foam tray:

PART NO.	DESCRIPTION
SH-55107	Large Heel Dolly
SH-55368FC	Curved Finishing & Grooving Hammer w/Fiberglass Handle
SH-55370FC	Straight Shrinking Hammer w/Fiberglass Handle
SH-55501	Slapping Spoon

Cross Peen Hammers

• For general work where a blunt chisel end is necessary. • Heat treated and powder coated. • 1-1/2" round face. • 4-1/2" length. • Weight: 14 oz. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55305	Wood Handle
SH-55305FC	Fiberglass Handle

SH-55309

Fender/Bumping Hammer



• 8-3/8" head with slight curve to reach deep into fenders and other areas. • Weight: 2 lb. 7 oz. • Heat treated and powder coated. • Hickory handle.

Short Pick Hammers

• Short, bullet point pick for tight areas. • Overall length: 4" • Weight: 10 oz. • Pick End: 2" long. • 1-9/16" round head, flat face. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55330	Wood Handle
SH-55330FC	Fiberglass Handle

Short Pick Hammers

• Bullet point. • For close-in work and finishing. • 1-1/2" round head, flat face. • Pick end: 3" long. • Overall length: 5-3/4". • Weight: 10 oz. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55331	Wood Handle
SH-55331FC	Fiberglass Handle

Pick and Finishing Hammers

• Has pencil point for close-in work and finishing. • Overall length: 5". • Weight: 10 oz. • Pick End: 3" long. • 1-1/2" round head, flat face. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55332	Wood Handle
SH-55332FC	Fiberglass Handle

Pick Hammers

• Medium straight pick with pencil point. • Overall length: 7". • Weight: 11 oz. • Pick End: 4-1/4" long. • 1-1/2" round head, flat face. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55341	Wood Handle
SH-55341FC	Fiberglass Handle

Bent Door Skin Hammers

• Long shaft and small paddle. • Fold the flange on door skins in half the time. • Use on any hard to reach area on inner structure of car. • Overall Length: 6-1/2". • Weight: 17 oz. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55356	Wood Handle
SH-55356FC	Fiberglass Handle

Long Straight Pick Hammers

• Thin point for long reach. • 1-1/2" round head, flat face. • Pick end: 5-1/4" long. • Overall length: 8". • Weight: 12 oz. • Made in U.S.A.



PART NO.	DESCRIPTION
SH-55361	Wood Handle
SH-55361FC	Fiberglass Handle



WARNING!

Wear safety goggles. Do not use chipped, mushroomed or cracked hammers. Strike squarely and avoid glancing blows. Use only for striking sheet metal; do not strike hard surfaces. Read safety/operating instructions thoroughly before using tools.

Long Curved Pick Hammers

- Curved pick with pencil point.
- Overall length: 8".
- Weight: 12 oz.
- Pick End: 5-1/4" long.
- 1-1/2" Round Head, Flat Face.
- Made in U.S.A.



PART NO.	DESCRIPTION
SH-55363	Wood Handle
SH-55363FC	Fiberglass Handle

Short Chisel Hammers

- 5" overall length with 2-1/4" chisel end.
- 1-1/2" round head with flat face.
- Weight: 10 oz.
- Made in U.S.A.



PART NO.	DESCRIPTION
SH-55364	Wood Handle
SH-55364FC	Fiberglass Handle

Curved Finishing and Grooving Hammers

- Chisel End: 3-1/2" long.
- Round head, flat face; blunt head, chisel point.
- Overall Length: 6-1/4".
- Weight: 11 oz.
- Made in U.S.A.



PART NO.	DESCRIPTION
SH-55368	Wood Handle
SH-55368FC	Fiberglass Handle

Straight Finishing and Grooving Hammers

- Overall length: 6-1/4".
- Weight: 11 oz.
- Chisel End: 3-1/2" long.
- Round head, flat face; blunt head, chisel point.
- Made in U.S.A.



PART NO.	DESCRIPTION
SH-55369	Wood Handle
SH-55369FC	Fiberglass Handle

Straight Shrinking Hammers

- Grooving and shrinking hammer.
- Combines a chisel end, used on corners and moldings, and a serrated face, to avoid stretching metal.
- 1-9/16" round head, serrated face.
- Chisel end: 3-1/2" long.
- Weight: 11 oz.
- Made in U.S.A.



PART NO.	DESCRIPTION
SH-55370	Wood Handle
SH-55370FC	Fiberglass Handle

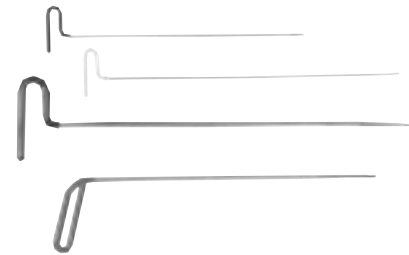
Replacement Hammer Handles



PART NO.	DESCRIPTION
SH-55090	For ALL SH-prefixed woodhandle hammers.
SH-55092	For the following SL-prefixed hammers: SL-104, SL-143, SL-160 and SL-173.
SH-55093	For the following SL-prefixed hammers: SL-102, SL-103, SL-105, SL-111, SL-112, SL-114, SL-121, SL-131, SL-137, SL-158, SL-164 and SL-166.
SH-55095	For ALL SH-prefixed fiberglass handle hammers.

DK-DK4

4 Piece Paintless Dent Removal Tool Kit



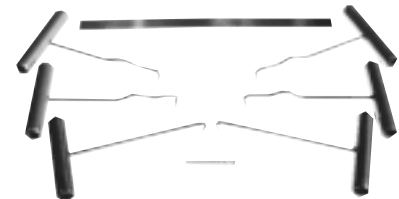
- Highest quality, heat-treated alloy stainless steel for maximum strength.
- Ergonomic design.
- Corrosion resistant.
- Color-coded, custom-baked handles.
- Comes with instruction manual and 30 minute training video kit.

Set consists of the following:

PART NO.	DESCRIPTION
R-4	7/16" x 27-1/4" Tri Pick Rod
SS-1	1/8" x 29-3/4" Long Universal Flat Tip Super Skinny
T-2	3/16" x 29-1/4" Long Thin Universal Blade Tip Tweezer
WT-6	5/16" x 23-1/2" Short J-Rod Right-Bend Flat Tip Window Tool

SM-20000

Pull Rod Set



- Super tough alloy steel is precisely heat treated for maximum strength.
- Factory tested under a 500 pound (228 kg) load.
- Vinyl coated handle is comfortable to use.
- Use two at a time for pulling.

Set includes the following with instruction sheet:

QTY.	PART NO.	DESCRIPTION
4	SM-20001	Pull Rods with formed shank
2	SM-20002	Pick Pulls with straight shank
1	SM-20003	Stainless Steel Straight Edge
1	SM-20004	HS Split Point Drill Bit



WARNING!

Wear safety goggles. Do not use chipped, mushroomed or cracked hammers. Strike squarely and avoid glancing blows. Use only for striking sheet metal; do not strike hard surfaces. Read safety/operating instructions thoroughly before using tools.

SH-55105

Rail Dolly



- Three beading and flanging lips. • For bumping, dinging, straightening and finishing various portions of body, door panels and fenders. • Dimensions: 3-1/8"L x 3"W x 2-3/8"H. • Weight: 3 lbs. 2 oz.

SH-55107

Large Heel Dolly



- Round and Flat Faces. • Use in sharp corners and wide radii portions of body and panels. • Dimensions: 3-1/8"L x 2-1/2"W x 1-3/8"H. • Weight: 2 lbs. 7 oz.

SH-55116

Rubber Heel Dolly



- Weighted hard rubber to match weight of hammer. • Works well on newer, thinner sheet metal. • Moves rather than stretches the metal and absorbs shock. • Dimensions: 2-1/2"L x 3"W x 1-1/2"H. • Weight: 17 oz.

SH-55120

Large Rubber Dolly



- Absorbs hammer shock and reduces stretching of sheet metal. • Also reduces hand fatigue. • Dimensions: 5"L x 3"W x 1-1/2"H. • Weight: 1 lb. 8 oz.

SH-55108

Large Toe Dolly



- Flat and low-crown curved faces. • For use in dinging flat surfaces and edges of lower portions of hood and other flat panels. • Dimensions: 4-7/8"L x 2-1/2"W x 1"H. • Weight: 2 lbs. 7 oz.

SH-55110

Thin Toe Dolly



- For use in dinging flat surfaces and edges of lower portions of hood and other flat panels. • Much thinner and lighter than standard toe dolly. • Fits narrow pockets and other areas not easily accessible. • Dimensions: 4-7/8"L x 2-1/2"W x 5/8"H. • Weight: 1 lb. 10 oz.

SH-55112

Large Comma Wedge Dolly



- For use behind brackets, braces and other reinforcements of roof, body, fenders and panels. • Dimensions: 5-3/4"L x 2-5/8"W x 2"H. • Weight: 3 lbs. 14 oz.



WARNING!

Wear safety goggles. Do not strike dolly block with a hammer or use as a hammer. Dolly block can chip; flying chips can cause injury.

SH-55113

Shrinking Toe Dolly



- Similar to the standard toe dolly but the curved side is covered with serrations to shrink sheet metal that has stretched. • Dimensions: 4-3/4"L x 2-1/2"W x 1-1/16"H. • Weight: 2 lbs. 8 oz.

SH-55115

Shot Dolly



- Heavy duty leather pouch filled with 2-1/2 pounds of shot. • Shapes to any body panel curve. • 3-3/4" wide by 6" long. • Weight: 2 lbs. 10 oz. • Made in U.S.A.

SH-55150

Spoon Dolly



- Use in hard to reach places; between body sheet metal and structural members. • Useful on door panels, rear quarter panels, trunk lids, good for prying. • Dimensions: 14"L x 2-1/2"W x 1"H. • Weight: 4 lbs. 14 oz. • Made in U.S.A.

SH-55501

Slapping Spoon



- Use with hammer to reduce metal ridges. • Large polished surface of the spoon provides a broad face for the hammer to work the metal to its original shape. • Overall length: 10". • Polished Surface: 4" x 2". • Weight: 12 oz. • Made in U.S.A.

PROSNIP® Tinner Snips

- Durable spring washer holds blades tightly against each other when cutting. • Flat hot drop forged steel blades are designed for straight cuts or wide curves. • Comfortable Plastisol™ handles.



PART NO.	CUTTING EDGE	LENGTH	WEIGHT
VG-010	2"	10"	1 lb.
VG-012	2-3/4"	12-3/4"	1-1/2 lbs.

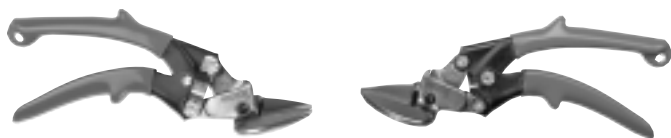
PROSNIP® Metal Snips with Grips

- Designed for body, gasket and all-around shop use. • Hot drop-forged blades. • Serrated edges. • Spring activated latch. • Hang hook for convenient storage. • Supplied with color coded comfortable, textured grips. • Cutting edge: 1-3/16". • Overall length: 10". • Weight: 1 lb.



PART NO.	CUT TYPE	COLOR
VG-101G	Left	Red
VG-102G	Right	Green
VG-103G	Straight	Yellow

PROSNIP® OFFSET SNIPS



- Blades forged from finest steel.
- Offset design keeps hands safely above work on long inside cuts.
- Comfortable plastic grips prevent hand fatigue.
- Exclusive pinch-point wire cutter.
- Spring design.
- Hang hole for easy storage.
- Size: 9-1/2"; Length of cut: 1-3/16".

PART NO.	DESCRIPTION	COLOR
VG-20SR	Right Cut	Green
VG-20SL	Left Cut	Red

Large Jaw Locking Pliers



- Ideal for freeing stubborn oil filters, exhaust work, removing radiator hoses, aligning water pump flanges and changing shock absorbers.
- Large heavy duty curved jaws, with hardened tooth design, grip around work of all shapes.
- High-grade alloy steel construction; locks onto work without slipping.
- Easy locking, quick-release action.

PART NO.	LENGTH	JAW OPENING
VG-6LC	6"	1-1/2"
VG-12LC	12"	3-1/8"

VG-9AC

Locking Panel Clamp



- Provides quick clamping and alignment of auto body panels.
- Bottom jaw slides in straight line motion.
- Jaw opening up to 3/8" (10mm).
- Throat depth 7/32" (6mm).
- Length: 9".

VG-8R

Locking Sheet Metal Tool



- Locks to work, eliminates hand gripping.
- Makes bending, forming and crimping jobs easier.
- Length: 8".
- Jaw Width: 3-1/8".
- Throat Depth: 1-3/4".

Locking "C"-Clamps



- Wide opening jaws provide greater versatility in clamping a wide variety of shapes.
- Guarded release and adjusting screw.

PART NO.	THROAT DEPTH	THROAT WIDTH	JAW OPENING
VG-9DR	4-3/4"	3-1/2"	4-1/2"
VG-18DR	9-1/2"	7-1/2"	8"

Locking "C" Clamps



- Adjust to correct opening before use, then clamps to work fast.
- Squeeze handle to lock, press easy-release trigger to unlock.
- Jaws easily adapted to specialized jobs or stay adjusted for repeat work.

PART NO.	TYPE	LENGTH	JAW ADJ.
VG-6R	Mini	6"	0 to 2"
VG-11R	Regular	11"	0 to 4"
VG-18R	Long Reach	18"	0 to 8"
VG-24R	Long Reach	24"	0 to 12-1/2"

Locking "C" Clamps with Swivel Pads



- Adjusting screw gives exacting pressure; stays adjusted for repetitive use.
- Powerful locking mechanism; wide opening jaw; swivel pads hold jobs without damaging surface.

PART NO.	TYPE	LENGTH	JAW ADJ.
VG-4SP	Mini	4"	0 to 1-5/8"
VG-6SP	Mini	6"	0 to 2-1/8"
VG-9SP	Regular	9"	0 to 4-1/2"
VG-11SP	Regular	11"	0 to 4"
VG-18SP	Long Reach	18"	0 to 8"
VG-24SP	Long Reach	24"	0 to 10"

Replacement Springs (Not illustrated)

PART NO.	USED WITH:
VG-08	10CR, 10R, 10WR, 20R
VG-22	7CR, 7R, 7WR, 8R, 9LN, 9R, 11R, 11SP, 11HD, RR
VG-52	5WR, 6LN, 6R, 6SP

VG-11HD

Locking Hold-Down Clamp with Swivel Tip



- Self-leveling swivel tip helps hold tapered work, irregular-shaped jobs and delicate objects.
- Clamps securely to most drilling tables and workbenches.
- Length: 11".
- Jaw adjustment: 0 to 3-3/4".
- Throat depth: 2-1/2".

VG-9R

Locking Welding Clamp



- Hold work in proper alignment.
- U-shaped jaws for visibility and working space.
- Length: 9".
- Jaw Width: 2-3/4".
- Throat Depth: 1-5/8".

1/4" Riveters



- All metal construction, simple design and few moving parts for the toughest riveting jobs.
- 17" long handles provide leverage to set five sizes of aluminum and steel rivets: 1/8" (3.2mm), 5/32" (4.0mm), 3/16" (4.8mm), 7/32" (6.0mm) and 1/4" (6.4mm).
- 2-1/2" long nose reaches tight spaces.
- Comfortable vinyl hand grips.
- Nosepieces thread into handles for convenient storage.

PART NO.	DESCRIPTION
TE-19250	Super Duty Riveter with 2-1/4" nose reach
TE-19270	Heavy Duty Riveter with 5-3/4" nose reach

SV-37001

Swivel-Head Professional Rivet Tool



- Fastens metal, leather, canvas and vinyl in seconds.
- Hardened steel construction.
- Extended nose piece for hard to reach locations.
- Comfortable non-slip handle grips and improved handle leverage.
- Rivet head swivels 360° for riveting at any angle.
- Interchangeable nose pieces and nose piece wrench included with tool.
- Sets three sizes of rivets: 1/8", 5/32" and 3/16".

MR-39000

Hand Riveter



- Patented square shoulder fulcrum pin of cold-formed, heat-treated steel prevents pin rotation.
- Precision die-cast high-strength aluminum alloy body, drop forged carbon steel upper handle, thick cushion-molded vinyl grips.
- Sets up to 3/16" all-steel rivets.
- Includes four nosepieces (3/32", 1/8", 5/32", 3/16") mounted on riveter plus service tool.

MR-39123 Repl. Jaws (pr.)

MR-39001

Hand Riveter Kit

- Contains the **MR-39000** Hand Riveter and an assortment of popular automotive rivets in a durable molded plastic case.

MR-39112 1/8" Trim Clip™ Nosepiece



MR-39202

Thread Setter Kit

- Installs threaded inserts up to 1/4" and 6mm steel.
- Includes Thread-Setter™ tool in molded plastic case with 8-32, 10-32, and 1/4-20 mandrels and nosepieces, wrench and instructions.
- Contains 12 each of 8-32, 10-24, and 10-32 and 8 each of 1/4-20 Klik Poly-Nuts.



MR-39203

Metric Thread Setter Kit

- Installs threaded inserts up to 1/4" and 6mm steel.
- Includes Thread-Setter™ tool in molded plastic case with 4mm, 5mm, 6mm and 8mm mandrels and nosepieces, wrench and instructions.
- Contains 25 each of 4mm and 5mm, 15 each of 6mm and 10 each of 8mm Klik Poly-Nuts.



HB-PR-75K

Hand Plastic Riveter Kit

- Designed for one-hand operation and will set most plastic rivets up to 6.6mm in one stroke.
- Provides access to areas not accessible with lever type tools.
- Includes riveter and four starter packages of plastic rivets (5.0mm for Ford/GM, 5.0mm for Chrysler, 6.3mm for Ford/GM/Chrysler, and 6.6mm for GM) in a plastic case.



HB-AK-175A

Air Hydraulic Riveter



- By only changing to one of the four included nosepiece, this tool sets steel, stainless steel, aluminum and plastic rivets from 1/8" up to 1/4" diameter.
- Uses a pull and release system, has a 5/8" work travel and will set most rivets in one cycle.
- Rate pull pressure of over 3,500 lbs.
- Operates effectively at any air pressure between 80 and 120 PSI.
- Comes in blow molded storage box.

HU-5501

Speed File



- Light, nearly indestructible Cyclocac plastic for flexibility and long life.
- Flat surfaces or curves.
- Wet or dry sanding.
- Uses standard 2-3/4" x 17-1/2" sandpaper.

HU-5502

Speed File



- Wet or dry sanding.
- Tempered aluminum with cushioned base.
- Uses 2-3/4" x 17-1/2" sandpaper.

HU-5504

Speed File

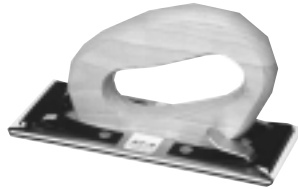


- Specification aluminum base with rubber cushion for grab.
- For all-purpose sanding.
- Ideal for wet or dry sanding.
- Uses 3" x 11" sandpaper sheets.

HU-5506

Speed File

- Tempered aluminum base permits wet or dry sanding.
- Especially useful in small areas.
- Uses 3" x 8" sandpaper.



SH-77348

Adjustable Body File Holder

- Use with 14" body files.
- Handle designed for both right and left hand use.
- Turnbuckle design permits flexing.
- Durable cast aluminum and plated steel construction.



VIXEN® Flexible Milled Curved Tooth Files



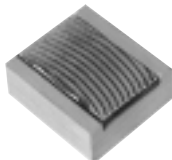
- Used for all types of auto body and sheet metal work.
- Flat flexible files have teeth on both sides with safe (uncut) edges.
- When used with the proper holder, flexible files can be adjusted to file concave and convex, as well as flat surfaces.

PART NO.	DESCRIPTION	TEETH PER INCH
HL-81-11400	14" x 1-11/32" x 13/64"	7
HL-81-11450	14" x 1-11/32" x 3/16"	8

SM-35260

Spec-Out Fine Nib File

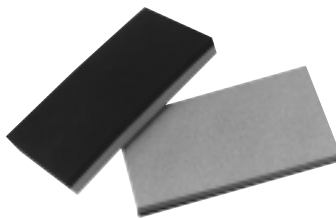
- Removes runs and dirt nibs.
- Honed tips of teeth shave off high spots in paint without digging into surrounding surface.



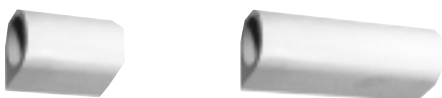
SM-35300

Double Density Sanding Block

- Designed for wet or dry sanding.
- Two-colored sides: Grey Side - soft and pliable for sanding irregular surfaces; Black Side - stiff for faster sanding on curved surfaces.
- Sandpaper sticks to block without adhesive.
- Dimensions: 2-1/2" x 5"-5/8".



Tear-Drop Sanding Blocks



- Designed to reach those hard-to-sand areas.
- Handles radius sanding, multi angle sanding, tight nose groove and inner body sanding.

PART NO.	DESCRIPTION
SM-35353	2-1/2" Mini Tear-Drop Block
SM-35356	5-1/2" Tear-Drop Block.

SH-77396

Rubber Sanding Block

- Rubber flat bottom, 2-3/4" x 5".
- Uses standard 3" x 8" sandpaper.
- Nails molded in each end secure paper.



SH-77397

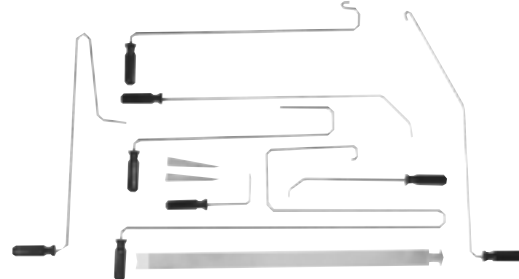
Vinyl Sanding Block

- Suction cup bottom, 2-3/4" x 9".
- Uses standard 9" x 11" sandpaper cut into thirds.
- Nails molded in each end secure paper.



SM-32700

Lockout Tools Kit



- For unlocking over 98% of domestic and imported cars.
- Unlock cars in seconds without damage.
- Unlock cars with digital and electric locks.
- 32 page instruction book lists over 100 makes and models of cars with specific unlocking instructions.
- Comes in flexible plastic storage pouch.

Kit includes the following:

PART NO.	DESCRIPTION
SM-32526	Vent Wing Tool, Short
SM-32527	Vent Wing Tool, Long
SM-32533	Universal Lockout Tool
SM-32545	Master Key & Wood Wedges
SM-32551	Horizontal Lock Rod Tool
SM-32552	Vertical Lock Rod Tool
SM-32553	Lock Button Lift Tool
SM-32554	Wide Lock Button Lift Tool
SM-32565	Slide Lock Tool

SM-32533

Universal Lockout Tool



- Designed to unlock doors quickly and without damage.
- With tool inserted on outside of door glass, push toward lock and tool will disengage lock system.
- Instructions included.

LTH-275

Inflate-A-Wedge™



- Allows for safe separation of the door frame from the vehicle body to insert a tool and unlock a vehicle.



WARNING!

Wear safety goggles.
Read operating instructions thoroughly.

SM-32900

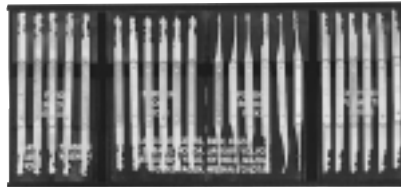
The BigEasy™ Lockout Tool Kit



- Actuate door handle, manual lock button or electric lock button on most all cars and trucks.
- No danger of airbag activation or disconnected door linkages.
- Smooth plastic wedge inserts without risk of damage to door or weather-stripping.
- Includes 56" long BigEasy™ tool, SureGrip™ Lock Knob Lifter and non-marring Door Wedge.

LTH-LT-340A

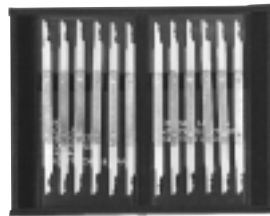
Automaster Super Lock Pick Set



- Designed for locksmiths, auto repossessioners, new and used car dealers, and professional mechanics.
- Twenty-five piece automotive lock pick set consisting of five (5) Ford picks, six (6) Chrysler picks, six (6) Foreign lock picks, six (6) Foreign rocker picks, a tension wrench and gas cap pick tool.
- All pieces are manufactured from quality tempered spring steel.
- Comes in a custom-made vinyl case with operating instructions.

LTH-LT-280

GM Auto Lock Pick Set



- Consists of 12 double ended single sided rocker picks.
- Provides 24 combinations which will cover the 1000+ possible key cut configurations for GM side bar locks.
- Work on most GM steering column, trunk and door locks.

UM-59425

DYNO™ KWICK™ Pick



- Ideal for automobile, equipment, truck, home, office, padlocks, etc.
- Made of lightweight aluminum alloy.
- Extra fine feel pick conveniently retracts into protective housing.
- Knurled and tapered nut for easy pick replacement.
- Spring loaded sure lock in/out position.
- Pocket clip releases by turning knurled set screw; acts as tension wrench.

UM-DKL-1 Replacement Rake

GM Door Spring Tools

- Compresses coil springs in GM doors for easy, safe removal and installation.
- Sides safely enclose spring.
- Heat treated, high carbon steel.



PART NO.	DESCRIPTION
SM-21900	GM Door Spring Tool
SM-21910	Light Truck Door Spring Tool

SM-16000

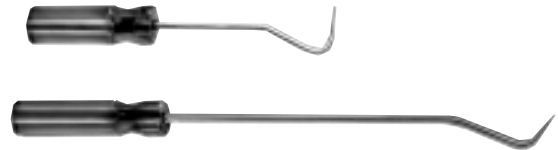
Door Handle Tool

- Fast door handle removal.
- Clip stays on handle for easy reinstallation.



TE-13820

Big Hooker Set



- Two popular tools: **TE-13800** Extra Long Hooker (4-1/2" exposed shaft, 8" overall length) and **TE-13810** Great Big Hooker (11" exposed shaft, 15" overall length).
- Heat treated and plated.
- Use for pushing and pulling.
- Provides extended reach.
- Use for removal of radiator hoses from inlets, outlets and clamps.
- Excellent for cotter pin removal and to retrieve small parts.
- Use on body clips, "O" rings and washers, moldings and windshield seals.

SM-21840

Door Aligning Bar



- Aligns doors, even with welded hinges.
- Use two plastic shims stored on handle to adjust depth for any door.

LS-65800

Door Adjuster



- Adjusts door hinges on most all cars and light trucks with either bolted or welded hinges.
- Comes with two-headed pin adapter for both large and small latches.
- Specially designed handle for optimum leverage.
- Simple to use - slide pin end of tool into door latch and close door until tool engages door striker, then raise or lower tool handle to align door.

TH-442

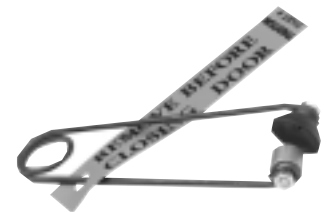
Door Buzzer Sanity Tool



- Eliminates irritating door buzzer sound when servicing vehicle with door open and ignition switch on.
- Features a fluorescent flag as a reminder to remove before closing door.

TH-445

Door Buzzer Sanity Tool II



- Designed for all domestic and import vehicles with door buzzer located on post behind front door.
- Eliminates irritating door buzzer when performing service with vehicle door open and ignition switch on.
- Made of heavy duty spring steel.
- Suction cup provides excellent adherence to vehicle surface.
- Orange warning flag reminds user to remove tool before closing door.

SM-17000

Door Jammer



- Great for paintless dent removal.
- Holds door open while you hammer, pull, grind, sand or paint.
- For door and deck lids.
- Fits any size latch.

SM-21835

Door Hinge Pin Popper

- Removes door hinge pins fast; drives out even stubborn hinge pins.
- Clearance for door panels.
- Direct Impact.
- Works on all GM cars with removable hinge pins.
- Includes pin puller to remove loosened pins.



VM-DT6200

5 PC. Door Panel Master Set



- Tools handle all styles of clips, trim and tack tools for removing trim, molding, emblems or for small prying jobs, plus a hinge side door panel removal tool. • High polished stainless steel seat treated blades are rigid and clean easily. • Wide blades are less likely to damage painted and upholstered surfaces. • Ergonomic two component handles with thumb stop for maximum control.

Includes one of each of the following in a plastic tray:

PART NO.	DESCRIPTION
VM-V614	Door Panel "V" notch Clip Tool
VM-V615	Door Panel "U" notch Clip Tool
VM-DT616	Small "U" Notch Pry Tool
VM-DT617	Small "V" Notch Pry Tool
VM-DT618	Door Panel Tool

VM-DT6000

Upholstery Tool Set



- Stainless steel, heat-treated blades with a high polished finish. • Cornwell logo laser etched on blades. • VM-DT20 Dual Purpose Window and Door Handle Clip Removal Tool is designed so that the handle end can also be used as an upholstery trucking tool for headliner installation.

Includes one of each of the following in a plastic tray:

PART NO.	DESCRIPTION
VM-DT20	Dual Purpose Tool
VM-V614	Door Panel "V" notch Clip Tool
VM-V615	Door Panel "U" notch Clip Tool

VM-DT6100

2 Piece Upholstery and Trim Removal Set



- Black with Cornwell blue handles, Ironman logo etched on blades. • Fully polished, heat-treated, stainless steel blades. • Packed in a plastic tray. • Patent pending.
- Set consists of the following:

PART NO.	DESCRIPTION
VM-DT616	Small "U" Notch Pry Tool
VM-DT617	Small "V" Notch Pry Tool

VM-V613

Upholstery Tool Set



- Each tool features a special tapered head and flat prying surface. • Extra long length for reaching clips in the middle of door panels. • Heat treated, black oxide finish with neon orange handles.

Includes one of each of the following:

PART NO.	DESCRIPTION
VM-V610	10" Long Door Panel Tool
VM-V612	18" Long Door Panel Tool

OF-1001

Upholstery Clip Remover



- For removal of upholstery clips on car doors. • Fits larger fasteners as well. • Comfortable plastic handle, black oxide blade.

OF-1002

Upholstery Clip Remover



- Quickly removes the upholstery clip from car doors. • Fits many sized clips, including large. • Fluted plastic handle with black oxide finish.

Mini Clip Removers



- Use to remove upholstery and other clips on cars where the regular, larger sizes are too big. • Applications include weather stripping clips around doors and radiators, as well as clips in and around the dashboard.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
OF-1008	"V"-notch	OF-1009	"U"-notch

CLS-35400

Cornwell Door Upholstery Remover



- Designed for plastic fasteners. • Place the tool under the edge of the door panel and insert the fastener as far as possible ... then simply pry up.
- Rugged tool with large, comfortable handle.

VM-DT618

Door Panel Tool

- For the hinge side of door panels. • Groove removes a variety of door and body trim fasteners. • Curved shank provides leverage for the most difficult trim fasteners. • Comfortable handle design.

PU-DT116A

Door Handle Clip Remover



- Designed to remove door handle clips on most GM and Ford cars. • Insert tool, push, & clip is removed. • Tool is extra long and offset to prevent damage to upholstery or escutcheon plate.

CLS-35350

Cornwell Bent Handle Door Panel Remover



- Removes door panel fasteners, even in tight spaces! • Bent handle design allows for use where space is limited and provides extra prying force. • Unique, square cutout in the tool tip provides a no-slip grip, even on fasteners with small ears.

SM-21700

Trim Pad Removing Tool



- Grips firmly while supporting the trim pad.
- Pries out the clip without damage.
- Pries against hidden surfaces, will not mar exposed surfaces.
- Heat treated, high carbon steel.
- 1/4" tapered slot.

JT-CZ326

CLIP-ZIP Tool

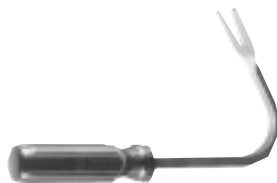


- For removal of clips on hood insulation, door trim, wiring stays, body trim molding, bumper covers, and wheel well mud shields.
- Manufactured with high carbon steel; Heat treated for strength.
- Zinc coated for corrosion protection.
- Has a unique return spring.

OF-1006

Trim Remover Tool

- V-Notch groove removes a variety of door and body trim fasteners.
- Long curved shank supplies adequate leverage for most difficult trim fasteners.
- When properly used this tool will not damage trim or auto body.



JT-CZ-163TP

Clip Remover Combo



- Two piece set to remove recessed nail-headed rivet fasteners, bumper covers, fender liners, grill work and mud shields.
- Curved clip remover works well on concave or recessed surfaces.
- Most common application is for use on Saturns.

Set contains the following:

PART NO.	DESCRIPTION
JT-CZ-163S	Straight Clip Remover
JT-CZ-163C	Curved Clip Remover

SM-21720

Sure Grip Trim Clip Plier



- Won't break clips.
- Works quickly and easily on trim pads, hood insulation.

LS-35060

Trim Panel Remover



- Removes hard-to-reach interior door panels and headliner clips.
- Inaccessible push-in clips are also easily removed with this tool.
- To use, slide the tool between the panel and the door. Engage the plastic clip in the grooved head. Twist the handle to pop the clip loose.
- Shipping weight: 11 oz.
- Patent pending.

JE-400

4" Molding Cutter



- Delivers quick, clean cuts on auto trim, belts & hoses, plastic tubing, rubber, weather stripping, nylon and much more!
- Replaceable stainless steel blades.
- Convenient blade storage in the handle; blade tray slips into handle to store extra blades.

JE-4078 Replacement Blade Kit

LS-35260

Weather Stripping Fastener Tool



- Quickly removes various types of plastic fasteners that hold on weather stripping, radiator shrouds, fender linings, air dams and other plastic or rubber parts.
- Equipped with a sliding urethane button for use when extra leverage is necessary.
- Also use the button to protect the vehicle surface.

KD-2038

Window Molding Tool

- Removes window molding clips on GM, Ford and AMC vehicles.
- Place jaw flat against glass, locate clips and roll them out with tip, keeping jaw flat to glass.



SM-21500

Universal Molding Release Tool

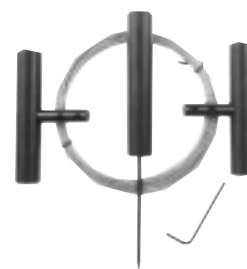


- Slide tool left or right under the molding until it hooks a retaining clip, then rock tool with a twist of the wrist.
- Heat-treated, high-carbon steel.

SH-77390

Windshield Wire Handle Kit

- Two easy grip steel handles that hold the windshield wire securely without exposing the fingers.
- Heavy-duty hole starter to pierce hardened urethane sealant.
- 72 ft. of braided windshield wire to cut all sealants, especially urethane.
- Made in U.S.A.



SH-77392

Braided Windshield Wire

- Three strands of gold stainless steel wire braided together in a 72 foot long hank of wire.
- Designed to cut tough urethane sealant, cuts a rough pattern to prevent urethane from "resealing".
- Made in U.S.A.



OW-7827

Saturn Window Glass Socket

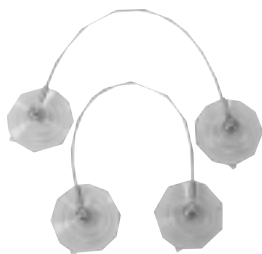
- Designed to apply even pressure to the special nut used to hold the window glass to the window regulator in 1991 and newer 2 and 4 door Saturns.
- Use with a 3/8" drive extension and ratchet.



LS-63900

Window Holders

- Holds door glass while working on window regulator on cars and trucks with a top door frame.
- To use, loop cable over frame and attach suction cups to each side of glass to secure glass while work is performed.



SH-77264

Suction Cup Dent Puller

- 4-1/2" diameter cup provides powerful suction.
- Lip design holds tight.
- Perfect for pulling metal panels.
- Can be used for handling sheet metal, glass or plastic.
- Made in U.S.A.



SH-77130

Vacuum Suction Disc

- Pull panel dents without drilling holes.
- Lipped edge provides strong hold yet allows easy release of vacuum.
- No trigger to gum up or break off.
- All steel parts gold plated.
- 6" diameter cup handles sheet metal, glass, or plastic.
- Made in U.S.A.



LS-65750

Windshield Wiper Arm Remover

- Makes wiper arm removal and replacement an easy job.
- Easily removes wiper arms without damage to car finish.



LS-47000

Windshield Locking Strip Tool

- Two double-ended tips (47030 T-shape, 47040 Standard).
- Unique design allows tip to swivel 90° in either direction.
- Select tip with opening that most closely fits locking strip, then feed strip into eyelet.



SH-77374

Windshield Removing Tool

- Removes windshields with ease.
- Cuts butyl adhesive caulking compound around windshields.
- Pull hand swivels for extra leverage.
- Tempered steel blade.



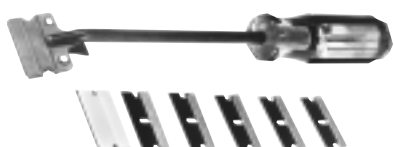
SH-77375 Replacement Blade

SH-77470 Super Blade (For windshields sealed with urethane)

LS-52000

Razor Blade Scraper

- Designed to reach in tight places.
- Comes with 5 stainless steel blades and 1 plastic blade for use on safety plastic laminated windshields.
- Spring-release allows easy interchange of blades.
- Reverse blade in holder for storage.
- Hollow handle stores all blades.



LS-52080 Repl. Plastic Blades

SH-77242 Repl. Razor Blades

SH-77600

Blade Scraper

- Three position scraper with convenient blade storage in handle.
- Fully plated.
- Complete with blade.

SH-77242 Repl. Razor Blades



LS-52400

Decal Scraper with Spring Release

- Blade folds into the handle for safe, convenient storage.
- Features three arm positions and a slanted blade for proper scraping.
- Scrape decals from windshields and other slick surfaces.
- Spring release allows easy interchange of razor blades.
- Includes one single edge razor blade.
- Overall length: 7-3/4".



SM-71300

Wing Nut Socket

- 1/4" Drive.
- Removes plastic wing nuts that retain many tail light assemblies quickly.



LS-64250

Wheel Well Molding Screwdriver

- Easy to remove and install molding around fender wells and other tight places.
- Fit straight slot or Phillips® bit in knob, place handle over bit and turn, reverse handle on bit to tighten.
- Can also be used with 1/4" round shaft screwdriver.
- Ratcheting action with infinite settings.

LS-64300 Straight Slot Bit

LS-64330 No. 2 Phillips® Bit



LS-29650

Antenna Nut Socket Set

- Remove/replace automotive antennas.
- Four double ended sockets to fit eight common domestic and import antenna nut.
- Three smaller sockets are 7/8" hex; largest socket is 1-1/4" hex.
- Made of heat-treated alloy steel.

Set consists of the following:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
LS-29810	#1 - small	LS-29600	#4 - smallest
LS-29820	#2 - medium	LS-29830	#3 - large



SM-21600

Universal Antenna Nut Wrench

- Fits most antenna bezel nuts, both foreign and domestic.
- Rugged steel construction.



LS-44870

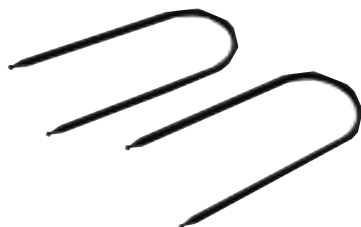
Universal Lift Support Clamp



- Holds gas charged lift supports found on hoods, tailgates, hatchbacks and trunks. • Securely holds weak lift supports in the extended position to allow access to the engine compartment or luggage area. • Aluminum body and brass threads prevent damage to the lift support shaft. • Colorful flag serves as a reminder to remove the clamp before closing.

CLS-11770

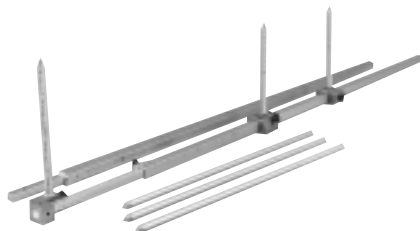
Cornwell Ford Radio Removal Tool



- Disengages/releases radio retaining clips without damage on Ford vehicles and some Saab, VW, and Audi and other import applications. • Set of two tools serves as handles for removing the radio from the panel. • Also works on some DIN mountings found on import vehicles.

PI-7000

Universal Tram Gauge



- For determining collision damage to unibody cars and checking critical measurements during repair. • Check dimensions between control points on suspension and mechanical components. • Establish dimensions around components and check contours by comparing measurements from one side of vehicle to the other. • Level bubble installed in sliding head for accuracy in measurement. • Measures from 2-1/2" to 7"; with the 4' extension measures up to 11'.

VM-V387

Hood Holder



- Holds hood, door or trunk lid open during repair work. • Open hood or door and place large end of column in stable location and position small telescoping rod on secure spot under hood or on door; extend telescoping rod to desired opening. • Pressure of hood or door secures Hood Holder in position. • Lift free end of trigger to disengage. • Range: 28" telescoping to 46". • Not for use as heavy duty supporter - 50 pounds maximum.

VM-V388

Telescoping Hood Holder



- Expands from 20" to 46" long. • Features three stages that lock with a twist action. • Can be used to hold up hoods, trunks, cargo doors, and hatch backs.

EC-HH1000

"Monster" Hood and Tailgate Holder



- Expands to 5 feet. • Extra heavy duty. • Safety button lock. • Custom lock channel. • Store in any tool box. • 1" diameter aluminum.

CLS-45900

Cornwell Hood Prop



- Works on all makes of cars and trucks. • Three-piece telescoping design allows the mechanic to hold the hood in desired position. • Telescopes from 18-1/2" to 46-3/4". • Use from the side of car for better access to the engine compartment. • Also great for body or repair work on doors, trunk lids, or hatchbacks.

LS-45710 Repair Kit

TH-430

Universal Hood/Tailgate Prop



- Clamps to weak gas cylinder lifts to hold up hood or tailgate. • Won't damage cylinder rod. • Eliminates clumsy sticks or props.

JS-99002

Multi-Purpose Deluxe Bench

- Exclusive reversible top rail allows for multiple applications. • 3/8" thick foam padding to prevent scratches and tears. • Large, easy to grip adjustment knobs allow for suction cups to be placed at multiple angles. • Constructed of 16 gauge mechanical grade steel tubing for strength and durability; Capable of handling loads up to 750 lbs. • Long lasting powder coat finish. • Adjustable height and width.



JS-99090

Deluxe Porta-Bench

- For use in painting, sanding, refinishing, glass work, welding, grinding and upholstery. • 3/8" thick foam padding to prevent scratches and tears. • Capable of handling loads up to 500 lbs. • Long lasting powder coat finish. • Adjustable height and width.



JS-35000C

Welding Bench

- Unique scissor action for "setup" and "tear down" in seconds, better balance and more stability. • 24" x 48" stretch metal grid table top with grounding post and welding holster. • Adjustable leg for easy leveling. • Long lasting powder coat finish. • Easy flat and vertical storage. • 1,000 lb. weight capacity.



WARNING!

Wear safety goggles. Read safety/operating instructions thoroughly before using tools.

PSG-1000

Cornwell Full Size Gravity Feed HVLP Spray Gun with Regulator

- Adjustable spray pattern varies from round jet to full flat jet.
- Meets all high volume, low pressure mandates and provides less overspray with a higher paint to work transfer efficiency.
- Fine atomization at low air consumption.
- Excellent balance with soft trigger action.
- Includes **PSG-600CC** patent pending aluminum cup and screw on lid with internal baffle.
- Fluid orifice - 1.4mm standard needle, nozzle and cap.



SPECIFICATIONS:

Air Inlet (NPT)	1/4"	CFM	13 @ 43 PSI
Rec. Inlet Pressure	43-50 PSI	Nozzle Pressure	10 PSI

- PSG-600CC** 600CC Aluminum Spray Gun Cup
PSG-RS1729AL-1 Gaskets for Cup (5)
PSG-1000-1.4 1.4MM Needle, Nozzle, Cap Set
PSG-1000-1.7 1.7MM Needle, Nozzle, Cap Set
PSG-1000-2.0 2.0MM Needle, Nozzle, Cap Set

PSG-1100

Cornwell Deluxe Suction Feed Spray Gun

- Chrome plated head and air nozzle.
- Adjustable air and paint controls.
- Dual trigger action.
- Includes **PSG-1000CC** external breather tube cup.



SPECIFICATIONS:

Air Inlet (NPT)	1/4"	CFM	12.7 @ 60 PSI
Rec. Inlet Pressure	60 PSI		

- PSG-1000CC** 1000CC Aluminum Spray Gun Cup
PSG-RS1729AL-1 Gaskets for Cup (5)

PSG-1500

Cornwell HVLP Gravity Feed Spray Gun

- Adjustable spray pattern varies from round jet to full flat jet.
- Meets all high volume, low pressure mandates and provides less overspray with a higher paint to work transfer efficiency.
- Fine atomization at low air consumption.
- Excellent balance with soft trigger action.
- Fluid orifice - 1.4mm standard needle, nozzle and cap.
- Includes a filter, spanner, socket spanner, brush, air regulator and **PSG-1000CCGFC** cup.



SPECIFICATIONS:

Air Inlet (NPT)	1/4"	CFM	13 @ 43 PSI
Rec. Inlet Pressure	43-50 PSI	Nozzle Pressure	10 PSI

- PSG-1000CCGFC** 1000CC Gravity Feed Cup

PSG-1200

Cornwell Gravity Feed Touch Up Spray Gun

- Uses less air, offers increased control over atomization and fluid output.
- Ideal for detail and custom painting.
- Includes **PSG-150CC** patent pending aluminum cup and screw on lid with internal baffle.
- Fluid orifice - 0.8 mm standard needle, nozzle and cap.



SPECIFICATIONS:

Air Inlet (NPT)	1/4"	CFM	4.5 @ 45 PSI
Rec. Inlet Pressure	45 PSI		

- PSG-150CC** 150CC Aluminum Spray Gun Cup
PSG-1200-0.5 0.5MM Needle, Nozzle, Cap Set
PSG-1200-0.8 0.8MM Needle, Nozzle, Cap Set
PSG-1200-1.0 1.0MM Needle, Nozzle, Cap Set

PSG-1400

Cornwell Full Size Gravity Feed Non-HVLP Spray Gun

- Gravity feed action uses less air and offers increased control over atomization and fluid output.
- Includes **PSG-600CC** patent pending aluminum cup and screw on lid with internal baffle.
- Fluid orifice: 1.4 mm standard needle, nozzle and cap.



SPECIFICATIONS:

Air Inlet (NPT)	1/4"	CFM	11.3 @ 50 PSI
Rec. Inlet Pressure ...	50-60 PSI		

- PSG-600CC** 600CC Aluminum Spray Gun Cup
PSG-RS1729AL-1 Gaskets for Cup (5)
PSG-1400-1.4 1.4MM Needle, Nozzle, Cap Set
PSG-1400-1.7 1.7MM Needle, Nozzle, Cap Set
PSG-1400-2.0 2.0MM Needle, Nozzle, Cap Set

PSG-1300

Cornwell Suction Feed Touch Up Spray Gun

- Lightweight, compact design.
- Overhead trigger for fine control.
- Includes attachable **PSG-200CC** siphon cup.
- Adjustable fluid control.



SPECIFICATIONS:

Air Inlet (NPT)	1/4"
CFM	9.8 @ 50 PSI
Rec. Inlet Pressure	50 PSI

- PSG-200CC** 200CC Aluminum Spray Gun Cup

PSG-RG

Cornwell Spray Gun Regulator

- Precision valve allows proper air pressure in spray gun.
- Features a 0-160 PSI pressure gauge.
- Fits most makes and models of spray guns and air tools.
- 1/4" NPT (male) inlet and 1/4" NPT (female) swivel outlet.



SR-16C-MR

Mini Air Regulator

- Small, lightweight unit attaches to any spray gun (including HVLP) for accurate air pressure regulation.
- A true diaphragm regulator.
- Push-pull lock pressure setting.
- Easy to read 0-160 PSI gauge.
- Capacity: 22 CFM.



SR-24AAV

Air Adjusting Valve with Gauge

- Precision tapered valve.
- Full open to close with about 4 turns.
- Infinitely adjustable.
- Large, easy to handle knob.
- Includes pressure gauge that reads up to 160 PSI.
- Fits all leading spray guns; can be used on HVLP spray guns.
- Air Inlet: 1/4" M.P.T.
- Air Outlet: 1/4" F.P.T. (Swivel Nut).



SR-12AAV

Air Adjusting Valve

- Precision tapered valve.
- Full open to close with about 4 turns.
- Infinitely adjustable.
- Large, easy to handle knob.
- Air Inlet: 1/4" M.P.T.
- Air Outlet: 1/4" F.P.T. (Swivel Nut).



JL-AC4535

Air Control Unit

- Compact, high flow regulator/filter for point of use air control.
- Pipe Size: 1/2" NPT
- Maximum flow @ 80 PSI: 100 CFM
- Maximum Pressure: 150 PSI
- Removal Rating: 5 Microns



JL-DD1008-2

Mini In-Line Desiccant Air Dryer

- Designed to remove the smallest contaminant particle, oil-aerosol or drop of moisture to supply clean, dry, oil-free air to the spray gun.
- Pipe Size: 1/4" NPS/NPT.
- Maximum Flow @ 80 PSI: 20 CFM.
- Maximum Pressure: 100 PSI.
- Removal Rating: 5 Microns.



JL-M-45

Air Filter and Elements

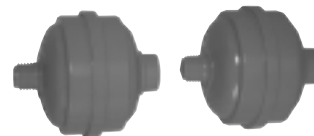
- For contaminant free air with higher flow rates and minimal pressure drops.
- Contains an air filter and two spare elements.
- Pipe size: 1/4" NPT.
- Maximum Flow @ 80 PSI: 45 CFM.
- Maximum Pressure: 125 PSI.
- Removal Rating: .01 Microns.



JL-D-12-2

Disposable Air Filter

- Designed to remove the smallest contaminant particle, oil-aerosol or drop of moisture to supply clean, dry, oil-free air to the spray gun.
- Pipe Size: 1/4" NPS/NPT.
- Maximum Flow @ 80 PSI: 30 CFM.
- Maximum Pressure: 100 PSI.
- Removal Rating: .01 Microns.



SH-77442

Air Water Separator

- Unique bronze filter separates water from air at the gun.
- Allows painter to shoot dry.
- Eliminates costly water spots.
- See-through high grade plastic housing.
- 1/4" male inlet; 1/4" female outlet.



PSG-SGH

Cornwell Spray Gun Holder

- Black powder coated finish.
- Holds all types of gravity feed spray guns while not in use, full sized and touch-up guns.
- Can be mounted on a wall or a counter.
- Paint strainer attachment included.

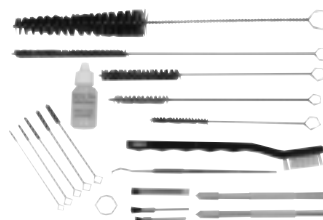


SGS-MMK21

Spray Gun Cleaning Kit

Kit Includes:

- Seven (7) Piece Micro Needle Set (Including Handle), Five (5) Piece Precision Mini Brush Set with Split Ring Holder, 1/2" Body Cavity Brush, Two (2) Piece End Brush Set with Handle, Power Brass Pick Up Tube Brush, 12" Pick Up Tube Brush, SGS Tapered Brush, Nylon GP Brush, 1/4" HVLP Brush, 1/2 oz. bottle spray gun lube and Spray gun pick.



ME-EC-100

ECOHEAT™ Heat Gun

- Two heat settings - 500° and 1000°F.
- 120 Volts AC maximum; 1200W maximum.
- Use for a wide variety of applications such as drying body filler, remove weather-stripping, shrink wrap packaging, stripping paint, bend and form lamination, dry plaster, etc.
- Lightweight and easy to use.
- 3-position slide switch, built-in hand and switch guard, and built-in stand - very stable; allows user to set heat gun down in an upright position.
- 3-wire grounded cordset; UL listed.
- Thermoplastic case for high impact durability.



MK-HG1100

Heat Gun

- Variable temperature control 250°F - 1100°F for a wide variety of applications.
- Strips paint and varnish, thaws frozen metal pipes, loosens tile and putty, remelts adhesives, and more.
- 2-speed blower setting for 8 CFM or 14 CFM.
- Thermocouple control maintains precise temperature.
- Ceramic core protects the heating element for longer tool life.
- Compact and lightweight for easy handling.



SPECIFICATIONS

Air Temperature	250° to 1100°F	Watts (AC only)	1,500
Air Volume	8 & 14 CFM	Overall Length	10" (254mm)
AMPS (120V)	12.5	Net Weight	1.3 lbs. (.59kg)

BC-155CT

Cornwell ANTHEM Air Brush Kit

- Includes: Anthem Model 155 Air Brush, trigger pad, extra needle and tip, air brush hanger, 6 ft. braided air hose, protective cap, 3/4 oz. (22cc) jar with jar adapter, instruction manual, two 2 oz. (60cc) paint jars, 1/4 oz. (7cc) color cup, and foam lined plastic carrying case.
- Thinner diameter needle mates with cone shaped paint tip enabling a single needle/tip configuration to spray virtually any desired material.
- Weight, length, and streamlined body design provide exacting balance and long term user comfort.
- Easily maintained.
- Create and maintain the finest of lines with ease; meets the most exacting standards of the professional.
- Kit reduces the necessary investment in spare parts, allows hours of continuous comfortable air brushing, maximizes working time, and eliminates service labor costs.



BC-175CT

Cornwell CRESCENDO Air Brush Kit

- Includes: Crescendo Model 175 Air Brush, trigger pad, extra heavy needle, tip, and regulator, air brush hanger, 6 ft. braided air hose, protective cap, 3/4 oz. (22cc) jar with jar adapter, instruction manual, two 2 oz. (60cc) paint jars, 1/4 oz. (7cc) color cup, and foam lined plastic carrying case.
- Bottom feed, dual action and internal mix.
- Self-lubricating Teflon® needle bearing enables continuous proper paint flow and prevents needle wear.
- Winged back lever design for easy reassembly and smooth trigger control.
- Snap-off handle for quick needle changes and cleaning.



BC-360CT

Universal Air Brush Set

- The only air brush capable of performing in a gravity feed as well as a bottom feed mode!
- Single nozzle/needle sprays from pencil lines to 3" spray pattern. Designed for spraying all materials, acrylics to watercolors, inks to lacquers, Air-Opaque™, Air-TeX™ and MODELflex™ airbrush paints.
- Includes a 360 Universal Air Brush with all purpose nozzle and air hose, mixing jars, needle, and instruction manual in a plastic storage case.



BC-350-9

Air Brush

- Excellent for stippling and spraying large areas.
- Bottom feed, single action, external mix.
- Can be used with ceramic glazes and stains, hobby enamels, reduced acrylics, inks, dyes and watercolors.
- Medium head assembly.



BC-180-11

Compressor with Auto Shutoff

- Oil-less diaphragm type compressor.
- Internal bleed, allowing use with any air brush.
- Automatic shut-off. By releasing the trigger of the air brush, this model will shut off until the trigger is depressed again.
- Compact, lightweight and quiet.
- Develops .90 CFM at 20 PSI.



BC-50-2011

Braided Air Brush Hose with Fitting

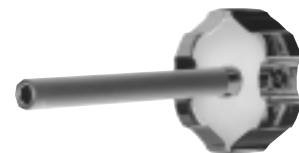
- Heavy duty 10 ft. (3.05 meters) braided air brush hose.
- Constructed of a rubber core and nylon braided skin that is strong and flexible for maximum efficient use.
- Swivel metal couplings at both ends: one end for air brush, other 1/4" female pipe thread (50-023) for use with compressor or CO₂ tank only.
- Made in U.S.A.



LS-14400

Headlight Adjuster for Ford

- Fits 4MM hex headlight adjusting bolts on Ford, Mercury and Lincoln cars and pick-ups with aerodynamic headlights.
- Large knob makes turning easy and short length allows access where space is limited.



LS-14540

Headlight Adjusting Ratchet for Ford

- Works on Ford aerodynamic headlights with rear mounted adjusters.
- Extra long handle allows easy access to hard-to-reach spaces.
- Has a 4MM hex with a roller clutch for infinite settings.



PU-23

Headlight Adjusting Spring Hook

- Made from heat treated alloy steel.
- Designed for removing and installing hard to reach headlight adjusting springs.
- Comfortable plastic handle is provided.



SM-21550

Ford Headlight Retaining Clip Tool

- By tilting tool to engage tang in clip, two fingers spread locking tabs to release them.
- Tang of tool lifts back of clip to clear locking tab on panel.
- Removes clip without damage even in confined spaces.
- Opposite end of tool reinstalls the same clip in seconds.



SHOP EQUIPMENT



The Choice of Professionals®
- Since 1919 -

CSE-SJ225 Cornwell 2-1/4 Ton Floor Jack



- Safety overload system prevents use beyond rated capacity.
- Stamped steel saddle.
- Heavy gauge steel frame.
- Heavy duty swivel casters.
- Large wide-track front wheels.
- Packaged in two UPS shippable boxes.

SPECIFICATIONS	
Capacity	2-1/4 tons
Low Height	5-1/4"
Raised Height	19-1/4"
Length	25"
Handle Length	40"
Chassis Width	14"
Saddle Diameter	5-1/8"
Weight	90 lbs.

CSE-SJ300 Cornwell 3 Ton "Blue Monster" Service Jack



- Super low height of only 3-1/2".
- 7-8 pump quick lift from low height to high height.
- Extra large front wheels.

SPECIFICATIONS	
Low Height	3-1/2"
High Height	19"
Length	28"
Chassis Width	15"
Saddle Diameter	4-3/4"
Weight	108 lbs.

CSE-RS3544 Handle Bumper
CSE-SJ321BL2 Replacement Hydraulic Unit
CSE-SJRP Rubber Pad

CSE-VS300 Cornwell 3 Ton Vehicle Stands

- Square based structural frame for stability.
- Ductile steel column posts.
- Self-lock ratchet stud prevents lowering of stand under load.
- Saddle provides maximum load control.



SPECIFICATIONS	
Capacity	3 tons
Low Height	12"
Raised Height	17-1/4"
Base	7-1/2" x 8"
Shipping Weight	21 lbs.

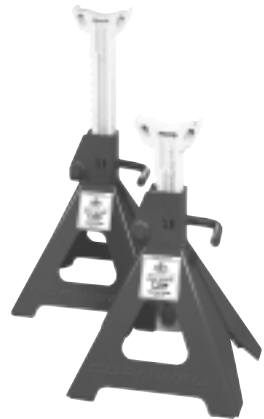
CSE-VS600 Cornwell 6 Ton Vehicle Stands



- Square based structural frame for stability.
- Ductile steel column posts.
- Self-lock ratchet stud prevents lowering of stand under load.
- Saddle provides maximum load control.

SPECIFICATIONS	
Capacity	6 tons
Low Height	16-9/16"
Raised Height	26"
Base	9-3/4" x 11"
Shipping Weight	38-1/2 lbs.

CSE-VS700 Cornwell 7 Ton Vehicle Stands



- Square based structural frame for stability.
- Ductile steel column posts.
- Self-lock ratchet stud prevents lowering of stand under load.
- Saddle provides maximum load control.

SPECIFICATIONS	
Capacity	7 tons
Low Height	15-3/4"
Raised Height	25-1/4"
Base	12-7/8" x 10-1/2"
Shipping Weight	50-1/2 lbs.

CSE-1000 1,000 Pound Geared Engine Stand



- 63-1 Worm gear ratio allows easy rotation of engine.
- Self-locking in any position.
- Breaks down for easy storage.
- Folded height: 21".

SPECIFICATIONS	
Capacity	1,000 lbs.
Dimensions	34"L x 36-1/2"W x 36"H
Shipping Weight	96 lbs.

CSE-DP1 Drip Pan

CSE-1250

1,250 Pound Capacity Engine Stand



- Sturdy U-shaped design.
- Adjustable locking mechanism allows 360° rotation of engine.
- Storage area for convenience.
- Shipped in two (2) UPS shippable boxes.

SPECIFICATIONS

Capacity	1,250 lbs.
Dimensions	33-1/4" L x 33-1/2" W x 33-1/2" H
Shipping Weight	88 lbs.

CTJ-1000TTJ

1,000 Pound Capacity Telescopic Transmission Jack



- Handles all passenger car, van and light truck automotive transmissions, front wheel drive transaxles and any air-cooled VW engines.
- Telescopic two-stage hydraulics for greater lifting range, precise load control and rapid lift.
- Convenient foot operated pump allows mechanic to use both hands to position and align saddle with transmission.
- Wide base with four swivel caster wheels.
- DX deluxe saddle - head can be tilted 10° left or right, 15° forward tilt and 20° backward tilt.

SPECIFICATIONS

Capacity	1,000 lbs.	Low Height	37"
Length of base	35-1/2"	High Height	73"
Width of base	33-1/2"	Shipping Weight	170 lbs.

CTJ-1200LP

1,200 Pound Capacity Low Profile Transmission Jack



- Open frame design for greater versatility.
- Low lift height of only 5-3/4", which accommodates most applications.
- Versatile saddle design allows for adjustments in every direction.
- Saddle tilt 12° side to side, 65° forward tilt and 12° backward tilt.
- 360° rotation of pumping handle for ease of use.

SPECIFICATIONS

Capacity	1,200 lbs.	Low Height	5-3/4"
Base	36-3/4" x 18-1/4"	High Height	31-1/2"
Net Weight	110 lbs.	Shipping Weight	117 lbs.

CSE-1500

1,500 Pound Capacity Engine Sling



- Closed link for ease of use with standard hoist hook.
- ACME thread for strength and ease of adjustment.
- Include four chains and angle brackets for mounting.
- Chain diameter: 1-1/2".
- Chain length: 1 foot.



WARNING!

Use extreme caution when using engine stands/lifting equipment to prevent tipping. Comply with warning labels for safe and proper use. Position jack properly before lifting vehicle. Use jacks only on hard, strong, and level surfaces.

CTJ-1000ATTJ

1,000 Pound Capacity Air Operated Telescopic Transmission Jack



- Handles all passenger car, van and light truck automotive transmissions, front wheel drive transaxles and any air-cooled VW engines.
- Telescopic two-stage hydraulics for greater lifting range, precise load control and rapid lift.
- Convenient foot operated pump allows mechanic to use both hands to position and align saddle with transmission.
- Wide base with four swivel caster wheels.
- Saddle tilt 15° lateral, 15° forward tilt and 20° backward tilt.

SPECIFICATIONS

Capacity	1,000 lbs.	Low Height	37"
Length of base	35-1/2"	High Height	73"
Width of base	33-1/2"	Shipping Weight	170 lbs.

CSE-4000TS

4,000 Pound Capacity Tripod Stand

- Bolt together steel construction. • All ball bearing head design for ease of tuning. • Wide base design for load stability. • ACME rod allows for precise height adjustment and strength. • Shipped in small flat box - requires assembly. • UPS shippable.



SPECIFICATIONS

Capacity	4,000 lbs.
Low Height	68"
Raised Height	76"
Base	24"
Shipping Weight	35 lbs.

CSE-4000

Breakdown Engine Crane

- Four position boom. • Heavy duty, slow release six ton ram. • Packed in three boxes.



	Position 1	Position 2	Position 3	Position 4
Max. Boom Height	93-1/4"	88"	82"	76-3/4"
Min. Boom Height	0	3"	9"	15"
Boom Capacity	1/2 Ton	1 Ton	1-1/2 Ton	2 Ton
Boom Ext. from End to Ram	48-1/2"	41-1/4"	34-1/2"	27-1/4"

SPECIFICATIONS

Base Dimensions (open)	Base Dimensions (folded)
31-1/2" Width Back	31-1/2" Width Back
33-1/2" Width Front	22-3/4" Width Front
66-1/2" Length	21-1/2" Length
Net Weight	188 lbs.
Gross Weight	202 lbs.

**FOR MORE INFORMATION
ON LIFTING EQUIPMENT,
SEE YOUR CORNWELL DEALER!**

CSE-1500S

1,500 Pound Capacity Underhoist Stand

- Large 12" diameter base for stability. • All ball bearing head design for ease of turning. • ACME rod allows precise height adjustment and strength. • 50 pounds force on foot pedal exerts 400 pounds of lifting force at saddle. • Great when positioning exhaust pipes for replacement. • UPS shippable. • Pedal will raise unit 1-1/4".



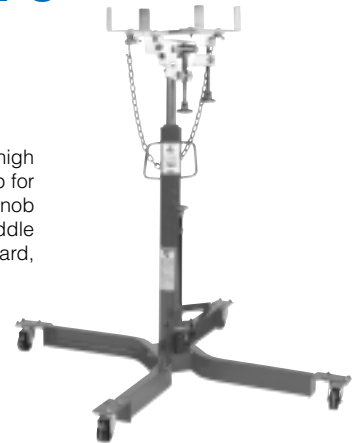
SPECIFICATIONS

Capacity	1,500 lbs.
Low Height	53"
Raised Height	80"
Base	12"
Shipping Weight	29 lbs.

CTJ-1000PPJ

1,000 Pound Professional Pit Jack

- Super low height and great high lift point. • Foot operated pump for ease of use. • Slow release knob conveniently located. • 23° saddle tilt forward, 16° saddle tilt backward, and 7° saddle tilt lateral.



SPECIFICATIONS

Maximum lifting head size	18-1/2" x 18-1/2"
Low Height	43-5/8"
High Height	73-1/4"
Weight	134 lbs.

CSE-WDS

Cornwell Wheel Dolly Set



- Set of two (2) dollies. • Feature 4" heavy duty swivel wheels (two locking) for easy mobility of vehicles. • Fully welded all steel frame for rugged dependability. • Each dolly holds 1200 lbs.

CSE-11520 Replacement Caster without Lock

CSE-11521 Replacement Caster with Lock

CSE-PBC30

Cornwell Plastic Blast Cabinet



- Comes complete and ready to use - just add air and abrasive.
- Work area: 30" x 20" x 19".
- Dimensions: 30"W x 20"D x 27"H.
- Low density polyethylene body.
- Heavy wall one piece construction.
- Window lens 15" x 27" with 12" x 24" window underlay.
- Gloves included.
- Cushioned foam ports.
- High quality trigger gun.
- Weight: 34 lbs.
- Door opening - 13" x 25".
- Capacity: 25 lbs.
- Recommended use with shop vacuum (use your own).
- Made in the U.S.A.

CSE-BB50

Cornwell 50 Pound Bucket Blaster

- Siphon feed blaster with Model F gun (with 1/4" ID nozzle & 1/8" ID air jet).
- Use dry abrasives only.
- 3/8" I.D. x 7 ft. hose.
- Free standing open top tank.
- Lightweight and portable.
- Easy to use with professional results.
- Includes hood & safety goggles.
- Two year warranty.
- Made in the U.S.A.



CSE-PB90

Cornwell Portable Pressure Blaster

- Deadman System - automatic shut off if handle is dropped, abrasive flow is sealed at nozzle end by square sealing block, abrasive hose remains pressurized, full control at handle, heavy duty design yet economical.
- Manual pull up tank closure.
- Adjustable abrasive flow valve.
- Pressure relief valve - 125 psi.
- Pressure gauge.
- Pressure relieving ball valve.
- Blast hood included.
- Welded steel frame.
- Wheels: 6".
- Shippable via UPS.



SPECIFICATIONS

Air pressure:	80-125 PSI
Steel nozzle size:	13/64", 1/4", 5/16" (1 ea.)
Air jet size:	5/64", 1/8", 5/32" (1 ea.)
Blast time:	40 minutes
Container volume:	3 gallons
Minimum Air Volume	7-15-20 CFM
Approximate sand capacity:	50 lbs.
Height:	18"
Shipping Weight:	8 lbs.

SPECIFICATIONS

Air Pressure:	80-125 PSI
Minimum Air Volume:	7 CFM @ 80 PSI
Height:	34"
Tank Dimensions:	10" x 25"
Tank Volume:	.9 Cu. Ft.
Sand Capacity (approx.):	90 lbs.
Shipping Weight:	53 lbs.
Blast Time:	30-45 minutes
Blast Hose Size:	1/2" I.D. x 8 ft.
Ceramic Nozzle Size:	1 ea. - 1/8", 1 ea. - 3/32"

UT-007B

SPEED BLASTER™

- Gravity feed hand held portable high efficiency sandblaster.
- Multi-ribbed, one-piece handle and neon blue reservoir.
- Adjustable material control valve precisely meters sand flow.
- Gravity forces particles into a replaceable hardened steel mixing chamber which then pass through a ceramic nozzle.
- Safety vented tank.



SPECIFICATIONS

Operating Pressure	60-125 PSI
Working Pressure	100-125 PSI
Air Consumption	12cfm-125PSI
Min. Air Compressor	3 HP
Fitting Size	1/4 NPT
Container Capacity	26 oz. (volume)
Gun Material	ABS
Empty Weight	14 oz.
Max. Particle Size	14 Grit

UT-007-12BP Replacement Nozzle

UT-HS2020

Hot Spot Blast Recovery System



- Converts the **UT-007B** Speed Blaster™ into a spot blaster.
- Adapts in seconds.
- Breathable bag empties in seconds.
- Captures blast media.
- Virtually dust free sandblasting.
- Features four (4) blast cones and a sample of SPEEDBLAST™ blast media.

UT-QS9000**Quick Spiff
Air Powered
Vacuum**

- Completely self contained vacuum that picks up dirt, dust, glass, nuts, bolts, etc.
- Comes with heavy duty dust collector bag that empties in seconds, one piece pistol grip, three attachments: 16" flex hose, 3" dust brush, and 9" crevice tool.
- Rear deflector extends dust bag life.

SPECIFICATIONS

Operating Pressure	60 -125 PSI	Minimum Compressor	 3 HP
Working Pressure	60 -125 PSI	Air Inlet	 1/4" NPT
Material	 ABS	Weight	 14 oz.
Air consumption	 12 CFM, 125 PSI		

PL-18-225**Pistol Grip
Spray Cleaner**

- Air operated siphon cleaning gun handles most cleaning fluids.
- For mixing water or soap solutions for pressure cleaning of parts, engines, machinery, floors and walls.
- Lightweight, easy to handle.
- Dual air inlet for handy connection from overhead or underbench floor air use.
- 1/4" Female NPT threads.
- Must be used on regulated air line with a pressure setting not to exceed 30 PSI.
- Includes 8 ft. of clear 1/4" vinyl tubing with a weighted strainer screen and fluid control valve.
- 10" length spray nozzle.

**Water Soluble Parts
Washer Brushes**

- Non-slip grip.
- Indestructible barb.
- Contain premium bristles.
- Guaranteed not to mushroom.
- Penetrating tip for better cleaning.
- Polyester bristles for water soluble solvents.

**PART NO. DESCRIPTION**

KT-7112	Water Soluble Parts Washer Brush
KT-7112-1	Water Soluble Parts Washer Brush with Hose

**Solvent Parts Washer
Brushes**

- Non-slip grip.
- Indestructible barb.
- Contain premium bristles.
- Guaranteed not to mushroom.
- Penetrating tip for better cleaning.
- Nylon bristles for petroleum based solvents.

**PART NO. DESCRIPTION**

KT-7287	Solvent Parts Washer Brush
KT-7287-1	Solvent Parts Washer Brush with Hose

TH-405**Small Parts
Cleaning Basket**

- Provides a container for placing small parts, such as carburetor, fuel injection or transmission parts, to prevent loss in a parts cleaner.
- Durable wire mesh with a galvanized steel cover that slides tightly over basket.
- Includes hook to hang in solution for soaking parts.

**Parts Cleaning Brushes**

- Excellent for cleaning engine and miscellaneous parts.
- Seamless steel ferrule.
- Fill material: Crimp Nylon.

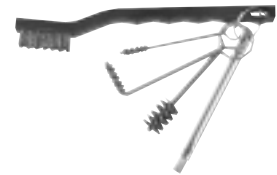
PART NO.	DIAMETER	BRISTLE LENGTH
AN-30452	1"	2-3/4"
AN-31153	1-1/4"	3"

General Purpose Brushes

- For thread cleaning, weld cleaning.
- Poly handles.

PART NO. DESCRIPTION

BR-93AP	Stainless steel wire fill
BR-93APB	Brass wire fill

BK-BAT-01**Cornwell Electrifix
Brush Set**

- Five specially designed tools to remove oxidation and corrosion and to clean electrical connectors.
- Includes the following on a metal ring: general purpose brush, bullet connector brush, fuse holder brush, lamp sockets grounds brush, and inside lamp sockets & small male connectors brush.

Small Scratch Brushes

- Plastic handles.
- For general cleaning in the plating and metal finish industries.
- Ideal for use in aluminum welding with inert arc.

PART NO.	WIRE FILL	BRISTLE LENGTH
AN-33761	Stainless Steel	1/2"
AN-73706	Brass	1/2"

AN-43001**Bent Handle Wire Filled Maintenance
Brush**

- Use for removing paint, rust, scale, solder chips and dirt, and for cleaning metal parts and thread files.
- Brush length: 6" (3 x 19 rows of 1-1/8" bristles.)
- Overall length: 13-1/4".

AN-50079**Shoe Handle
Carbon
Scratch Brush**

- Use for cleaning metal parts, paint removal, rust and scale removal and thread and file cleaning.
- Brush length: 5-1/2" with 4 x 16 rows of 1-1/8" bristles.
- Overall length: 10".

**WARNING!**

Wear safety goggles and protective clothing. Use in well ventilated area. Do not expose solvent to flames, sparks or other sources of ignition. Read safety/operating instructions thoroughly before using equipment.

MX-CMG-05602**Cornwell
Mechanic's Apron**

- Oversized full coverage pattern is made from durable, pliable 100% cotton material.
- Provides added protection to crew uniforms and work clothes.
- 1" wide neck strap and waist buckles for individual adjustment.
- Expansive pocket design with wide flap features side positioning for minimal interference and easy tool access.
- Upper chest pocket.
- Anatomically cut front vent for ease of mobility.

**LS-18700****Hot Sleeve**

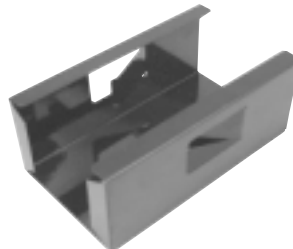
- Durable, heat-resistant Kevlar® sleeve protects arms from burns while working around the engine.
- Double wall construction to protect hand and forearm from hot objects.
- Works on either right or left arm.
- Washable.

**MX-MG05900****KEVLAR® Heat
Sleeve**

- Heat resistant, fire-retardant sleeve.
- Treated with FibreShield™ to repel fluids such as oil, fuel and water.
- Made of 100% woven Kevlar®.
- Length: 18" with a thumb cut.

**LS-20130****Mechanic's Glove
Box Holder**

- Conveniently attaches to tool boxes or any ferrous metal surface. Or mount it on a wall using the screw slots provided.
- Two large magnets hold the dispenser in place.
- Fits all common sizes of disposable rubber glove boxes, including 25, 50 and 100 packs.
- Three adjusting springs can be adjusted as necessary to hold various box sizes.
- Made of powder coated steel.
- Shipping weight: 1 lb., 10 oz.

**SNR-02102****Leather Work Gloves**

- Premium grained sheepskin.
- Unlined to assure sensitive touch.
- Seamless index finger.
- Sewn in a gunn cut pattern with a straight thumb.
- 4" leather cuff is sewn inseam to the glove.

**WARNING!**

Wear safety goggles and protective clothing. Read safety/operating instructions thoroughly before using equipment.

Disposable Gloves**Diamond Grip™ Latex Gloves
(Powder Free)**

- Thicker and longer than typical latex gloves for added protection where you need it most.
- Textured fingers for a secure grip in wet or dry conditions.
- Premium, low-modulus latex glove for a true fit, comfort and reduced hand fatigue.

PART NO.	DESCRIPTION
MRX-MF-300-S	Small (100)
MRX-MF-300-M	Medium (100)
MRX-MF-300-L	Large (100)
MRX-MF-300-XL	Extra Large (100)

**SafeGrip® Latex Gloves
(Powder Free)**

- Low modulus profile allows for a comfortable fit resulting in reduced hand fatigue over long periods of wear.
- Up to 4 times thicker than standard latex gloves for greater overall protection.
- Extended cuff for increased protection over the wrist and forearm.
- Textured fingers for a secure grip in wet or dry conditions.

PART NO.	DESCRIPTION
MRX-SG-375-S	Small (50)
MRX-SG-375-M	Medium (50)
MRX-SG-375-L	Large (50)
MRX-SG-375-XL	Extra Large (50)

**Supreno® SE Nitrile Gloves
(Powder Free)**

- Soft and durable nitrile formulation for improved strength, durability and greater comfort.
- Interior polymer coating makes glove easy to don.
- 100% nitrile to alleviate the potential for adverse reactions associated with natural latex protein.
- Textured fingers allow for reliable grip in wet and dry conditions.
- Gradient dipping provides added protection where you need it most.

PART NO.	DESCRIPTION
MRX-SU-690-S	Small (100)
MRX-SU-690-M	Medium (100)
MRX-SU-690-L	Large (100)
MRX-SU-690-XL	Extra Large (100)

**Nitron One® Nitrile Gloves
(Lightly Powdered)**

- Longer and thicker than typical synthetic disposable gloves for greater overall protection and over the wrist.
- 100% synthetic, not made from natural rubber latex.
- Textured for wet and dry gripping.
- Lightly powdered with absorbable cornstarch (USP) for easier donning.

PART NO.	DESCRIPTION
MRX-NO-123-S	Small (100)
MRX-NO-123-M	Medium (100)
MRX-NO-123-L	Large (100)
MRX-NO-123-XL	Extra Large (100)

Carpal Tunnel Gloves

- Patented protection, prevention and relief from Carpal Tunnel Syndrome, impact and repetitive stress.
- 5MM gel protective padding cushions the area around the Carpal Tunnel, palm and finger joints.
- The cut-out area gives the Carpal Tunnel room to fully function in situations where external pressure is a potential contributor to Carpal Tunnel Syndrome.
- Relieves pressure on the medial nerve.
- Impact resistant palm design reduces HAVS (hand arm vibration syndrome).
- Fingerless design for added flexibility.
- Breathable black neoprene for unparalleled comfort.
- Uses include: Assembly line, construction, industrial, mechanics, technicians, tire buster, driving, weight lifting, etc.



PART NO.	DESCRIPTION
RG-163-08	Small
RG-163-09	Medium
RG-163-10	Large
RG-163-11	Extra Large
RG-163-12	Extra Extra Large

Cornwell Mechanix Gloves

- Machine washable.
- Provide protection from heat and cold, increase grip and enhance finger sensitivity to improve control when working with small parts.



PART NO.	COLOR	SIZE
MX-CMG-032008	Blue	Small
MX-CMG-032009	Blue	Medium
MX-CMG-032010	Blue	Large
MX-CMG-032011	Blue	X-Large
MX-CMG-032012	Blue	XX-Large
MX-CMG-052008	Black	Small
MX-CMG-052009	Black	Medium
MX-CMG-052010	Black	Large
MX-CMG-052011	Black	X-Large
MX-CMG-052012	Black	XX-Large

Cornwell M-PACT Gloves

- Protect hands from vibrations caused by impact wrenches, air tools and hammers.
- Designed for extreme use conditions.
- Seamless thumb and index finger design for improved sensitivity; double-layer padded palm, thumb, and index finger panel.
- Machine washable synthetic fabric construction.
- Hidden seam stitching eliminates snagging.



PART NO.	COLOR	SIZE
MX-CMP-032008	Blue	Small
MX-CMP-032009	Blue	Medium
MX-CMP-032010	Blue	Large
MX-CMP-032011	Blue	X-Large
MX-CMP-032012	Blue	XX-Large
MX-CMP-052008	Black	Small
MX-CMP-052009	Black	Medium
MX-CMP-052010	Black	Large
MX-CMP-052011	Black	X-Large
MX-CMP-052012	Black	XX-Large

PIT BOOTS

- Traction control M6 Pit boots.
- Separate compression molded EVA mid-sole which provides cushioning and long lasting shock absorption.
- Genuine Nubuck leather upper providing durability.
- Reinforced rubber toe and heel areas for extra durability.
- Injection molded padding on side of foot area for extra protection.
- Improved Ghilly lace loop system provides superior fit and support.
- Three-quarter top design, providing support and protection for ankles.
- Quick lacing system design for easy foot entry.
- Reflective "underlay" piping on front for increased visibility.
- Heavy-duty oil resistant rubber outsole that resists hydroplaning and provides traction on wet surfaces with increased stability.



PART NO.	DESCRIPTION
MX-M6-05-050	Pit Boot Size 5
MX-M6-05-060	Pit Boot Size 6
MX-M6-05-070	Pit Boot Size 7
MX-M6-05-080	Pit Boot Size 8
MX-M6-05-085	Pit Boot Size 8-1/2
MX-M6-05-090	Pit Boot Size 9
MX-M6-05-095	Pit Boot Size 9-1/2
MX-M6-05-100	Pit Boot Size 10
MX-M6-05-105	Pit Boot Size 10-1/2
MX-M6-05-110	Pit Boot Size 11
MX-M6-05-115	Pit Boot Size 11-1/2
MX-M6-05-120	Pit Boot Size 12
MX-M6-05-130	Pit Boot Size 13
MX-M6-05-140	Pit Boot Size 14
MX-M6-05-150	Pit Boot Size 15

MX-M7 Mechanix Shoe



- Compression molded EVA mid-sole provides full foot cushioning and shock absorption.
- Reinforced rubber toe and heel areas increases durability.
- Padded toe area.
- Nubuck leather side reinforcement increases lateral support.
- Ghilly lace loop system.
- Heavy duty mesh/leather upper.
- Reflective underlay on heel adds visibility.

**Contact your local
Cornwell Dealer for
complete details!**

BREEZE Safety Glasses



- Sculpted dual lenses.
- Soft adjustable nose pad.
- ANSI Z87 certified.
- Telescopic adjustable temples for custom fit.
- Lightweight frame.

PART NO.	DESCRIPTION
SGL-5238224	Breeze Safety Glasses/Blue w/Gray Lens
SGL-5238414	Breeze Safety Glasses/Black w/Mirror Lens
SGL-5238434	Breeze Safety Glasses/Platinum w/Mirror Lens
SGL-5238714	Breeze Safety Glasses/Black w/Indoor/Outdoor

SGL-5238200L	Gray Replacement Lens/Breeze Glasses
SGL-5238400L	Silver Mirror Replacement. Lens/Breeze Glasses
SGL-5238700L	Indoor/Outdoor Replacement. Lens/Breeze Glasses
SGL-5281018	Black Leather Braid Eyeglass Retainer
SGL-DISP	Safety Glasses Display for 12 pairs glasses

NASCAR® II Safety Glasses



- High impact polycarbonate. • Excellent ultraviolet protection (filters out UVA and UVB). • Adjustable temples. • Hard coated lens. • ANSI Z87.1-1989 Certified. • Ergonomic design.

PART NO.	DESCRIPTION
SGL-5318014	NASCAR® II Safety Glasses/Black w/Clear Lens
SGL-5318214	NASCAR® II Safety Glasses/Black w/Gray Lens
SGL-5318314	NASCAR® II Glasses/Black w/Yellow Lens
SGL-5318414	NASCAR® II Glasses/Black w/Silver Lens
SGL-5318514	NASCAR® II Glasses/Black w/Blue Lens

SGL-5317099 12 Piece Clip Strip Display
SGL-DISP Safety Glasses Display for 12 pairs glasses

NASCAR® Safety Glasses



- Frameless translucent styling. • Wraparound design for total comfort. • Soft rubber temple tips. • High impact polycarbonate. • 100% protection against harmful UV rays. • Scratchcoat™ protection. • SEI® Certified. • ANSI Z87.1-1989. • CSA Z94.3-1999. • Available with clear or silver lens.

PART NO.	DESCRIPTION
BLACK WITH CLEAR LENS	
SGL-5338016	Earnhardt #3 Safety Glasses
SGL-5348016	Earnhardt Jr. #8 Safety Glasses
SGL-5358016	Waltrip #15 Safety Glasses
SGL-5378016	Marlin #40 Safety Glasses
SGL-5428016	Jarrett #88 Safety Glasses
BLACK WITH SILVER LENS	
SGL-5338416	Earnhardt #3 Safety Glasses
SGL-5348416	Earnhardt Jr. #8 Safety Glasses
SGL-5358416	Waltrip #15 Safety Glasses
SGL-5378416	Marlin #40 Safety Glasses
SGL-5428416	Jarrett #88 Safety Glasses

VERATTI® LITES Safety Glasses

- Adjustable lenses. • Cornwell logo on frame. • ANSI Z87 certified. • Telescopic adjustable temples for custom fit. • Lightweight frame.



PART NO.	DESCRIPTION
SGL-5208014	Veratti® Lites Safety Glasses/Black w/Clear Lens
SGL-5208034	Veratti® Lites Safety Glasses/Blue w/Clear Lens

SGL-5208000L Clear Replacement Lens/Veratti Lites
SGL-5281018 Black Leather Braid Eyeglass Retainer
SGL-DISP Safety Glasses Display for 12 pairs glasses

V1000 Safety Glasses



- 100% polycarbonate frame. • 8 degree base spherical hard coat lens. • ANSI Z87 certified. • Telescopic adjustable temples for custom fit. • Lightweight frame.

PART NO.	DESCRIPTION
SGL-5258014	V1000 Safety Glasses/Black w/Clear Lens
SGL-5258214	V1000 Safety Glasses/Black w/Gray Lens
SGL-5258432	V1000 Safety Glasses/Silver w/Mirror Lens

SGL-5281018 Black Leather Braid Eyeglass Retainer
SGL-DISP Safety Glasses Display for 12 pairs glasses

SPORT Safety Glasses



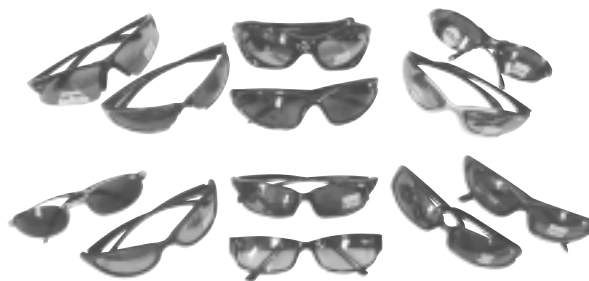
- Double coated temple tips. • Soft nose piece. • Durable nylon frame. • 7 degree base spherical hard coat lens. • ANSI Z87 certified. • Telescopic adjustable temples for custom fit. • Lightweight frame.

PART NO.	DESCRIPTION
SGL-5278214	Sport Safety Glasses/Black w/Gray Lens
SGL-5278314	Sport Safety Glasses/Black w/Yellow Lens
SGL-5278414	Sport Safety Glasses/Black w/Mirror Lens
SGL-5278714	Sport Safety Glasses/Black w/Indoor/Outdoor

SGL-5281018 Black Leather Braid Eyeglass Retainer
SGL-DISP Safety Glasses Display for 12 pairs glasses

BMI-12SG

Assorted Sunglasses



- Twelve pairs of sunglasses in an assortment of color lenses and frames. • All sunglasses are UV protected.

BMI-SGD Sunglasses Display



WARNING!

Safety spectacle lenses and frames are NOT unbreakable. They will not provide protection against severe impact hazards such as (but not limited to) fragmenting grinding wheels, abrasive discs, exploding devices nor against hazardous materials, molten metal, arc welding splatter or chemical splash. Additional guards or other protective devices MUST be used where these hazards exist.

WELDING HELMETS

• Natural contours to deflect welding sparks. • Extended throat to provide additional neck protection. • Lightweight engineered thermoplastic resin withstands up to 350°F. • Ratchet headgear and a soft, form-fitting headband for optimum comfort. • ADF™ - Auto Darkening Filter - available in some models. • ADF patented surface mode cartridges feature world's fastest switching speed. • Fail-safe IRUV protection equivalent to shade #14 filter lens - even in clear state. • Two AAA alkaline batteries - 700 to 800 hours duty time - provided in ADF filters.

MO-0800-8283**#10 Fixed Shade Welding Helmet**

• 4.5" x 5.25" vertically placed fixed front viewing window. • IRUV Shade #10 hardened glass filter lens (non-electronic filter plate). • Clear polycarbonate cover lens.



MO-0800-0578 Repl. 4.5" x 5.25" Green IRUV Shade #10 filter lens
MO-0800-0638 Repl. 4.5" x 5.25" Clear polycarbonate cover lens
MO-0800-0645 Repl. 4.5" x 5.25" Gold IRUV Shade #10 filter lens

MO-0800-8286**ADF-Super-VLS 3-in-1 Welding Helmet**

• ADF-SUPER-VL - Variable Shade (#9 through #12) electronic filter cartridge. • 9 sq. in. (approx.) view area. • CLEAR VUE™ shade #3 (clear state) enables user to see true color definition. • Arc sensor adjustment for low-amp (min. 10 amps) welding applications or different ambient light conditions including fluorescent, mercury vapor or outdoor light. • Adjustable clear time delay - delay switching time from filter shade to CLEAR VUE for tack welding. • Manual OFF switch - to shut off immediately (without waiting for Auto-off). • Auto-off - ADF turns itself off approx. 20 minutes after last arc. • Red LED low battery warning light - when approx. 8 hours battery life remains.

**MO-0800-8285****ADF-VLS Welding Helmet with Solar Booster**

• ADF-V - Variable Shade (#9 through #12) electronic filter cartridge. • 6 sq. in. (approx.) view area. • Shade #4 (clear" state). • Arc sensor adjustment for low-amp (min. 10 amps) welding applications or different ambient light conditions including fluorescent, mercury vapor or outdoor light. • Auto-off - ADF turns itself off approximately 20 minutes after last arc. • Red LED low battery warning light - when approx. 8 hrs. battery life remains.

**MO-0800-8287****ADF Medalist 10-L Welding Helmet**

• ADF Medalist Fixed Shade #10-L CLEAR VUE™ electronic filter cartridge. • 4 sq. inch (approx.) view area. • Clear-Vue™ Shade #3 (clear state) enables user to see true color definition. • Auto-off - ADF turns itself off approximately 20 minutes after last arc.

**MO-0800-8284****ADF Solar Welding Helmet, Shade 10/11**

• Economical, solar, auto-darkening helmet! • Lightweight with no batteries to change. • Can be used for most welding applications. • Shade 10/11 with Clear State of Shade 4. • 2" x 4-1/4" lens holder. • 4 square inches of viewing area. • Auto on: Ready-to-Weld.

**MO-0800-1069****Headgear**

• Soft foam padded forehead cushion for optimum comfort. • Made in the U.S.A.



MO-0800-0963

Face Shield Headgear

- Nylon ratchet adjusts headband to 27 sizes.
- Pivot tabs relieve pressure on temples.
- Durable polyethylene spark deflector.
- Soft foam forehead cushion.
- Adjustable headgear tension.
- Crown strap adjusts to four positions.



Faceshield Windows for MO-0800-0963

- Made of durable acetate material.
- Universal hole pattern fits many competitive models.

PART NO.	DESCRIPTION
MO-0800-0607	9" x 15-1/2" x .040" Clear Window, unbound
MO-0800-0613	9" x 15-1/2" x .040" Green Window, aluminum bound

MO-0800-0845

Flexible Frame Welding and Cutting Cover Goggles



- Oxy-fuel cutting/welding goggles.
- Factory installed shade 5.0 filter plate and clear polycarbonate cover plate.
- Hooded vents.
- 2" x 4.25" flip-front.
- NOT TO BE USED FOR ARC WELDING.

- MO-0800-0628 Replacement Clear 2" x 4-1/4" polycarbonate lens
- MO-0800-0561 Replacement Shade #5 Filter Plate
- MO-0800-0710 Replacement 1/2" Elastic Headband with slides

"Biker Style" Welding & Safety Goggles

- Peripheral vision of a spectacle, the light style of a goggle.
- Two-piece lens surrounded by foam rubber for maximum comfort.
- Fits naturally to contour of face, blocking out contaminants.
- Side vents increase air flow.
- Meets ANSI Z87.1 standards.



PART NO.	LENS	CAUTIONS
MO-0746-0034	Shade 5	NOT to be used for Arc Welding
MO-0746-0035	Smoke	NOT to be used for oxyfuel gas cutting (contains NO IRUV protection)
MO-0746-0036	Clear	NOT to be used for oxyfuel gas cutting (contains NO IRUV protection)

SA-2661-00

Half Mask Respirator

- Size: Medium.
- Offers quality, comfort, and economy.
- Remains elastic in extreme cold/heat.
- Hypoallergenic silicone facepiece will not oxidize or react with ozone or paint overspray.
- Exclusive over/under chin facial contact feature keeps mask from slipping for comfort and protection.



- SA-1001-00 Organic Vapor Cartridge
- SA-1050-00 Particulate Filter (10)
- SA-1060-00 Paint Mists & Dust Filter

MO-HP-220

Dielectric Hearing Protectors

- Lightweight, economical, dielectric muff.
- Extra wide cups for maximum comfort.
- Pivoting ear cups maintain alignment with the head to provide superior seal.
- Noise Reduction Rating: 22 db. over the head, 20 db. under chin/behind head.



WT-11128

6-1/2" Utility Workshop Vise

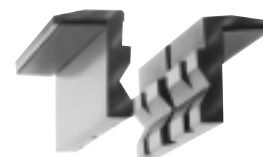


- Perfect for use in utility and light duty applications.
- Formed steel channel beam and 30,000 PSI body casting.
- Replaceable, serrated steel top jaws for a tight grip.
- Built-in pipe jaws to handle various pipe sizes.
- 180° swivel base with locknut.
- Large anvil with plenty of work surface.

SPECIFICATIONS			
Jaw Width	6-1/2"	Throat Depth	5"
Jaw Opening	5-1/2"	Pipe Capacity	1/8" to 2-1/2"

LS-48000

Aluminum Vise Jaw Pads



- Ideal for holding round and hex parts securely.
- V-shaped aluminum surface holds and help protect round and hex parts.
- Specially designed ledge supports flat parts while clamping.
- Strong nitrile magnets will attach to any steel vise jaws.

LS-48100

Rubber Face Vise Jaw Pads



- Ideal for protecting delicate parts.
- Rubber jaw pads protect delicate parts from damage.
- Also works great for holding irregular shapes.
- Strong nitrile magnets will attach to any steel vise jaws.

Drop-Forged C-Clamps

- Regular duty, drop-forged steel frame, with extra deep throat for larger workpieces.
- Body is heat treated.
- Spindle and pad are replaceable.
- Spindles and Perma Pads® are black oxide coated to resist corrosion.
- Spindle diameter: 3/4".



PART NO.	OPENING CAPACITY	THROAT DEPTH	MINIMUM PROOF TEST
WT-14242	0 - 4-1/4"	3-1/4"	6200 lbs.
WT-14256	0 - 6-1/16"	4-1/8"	6600 lbs.
WT-14270	0 - 8-1/4"	5"	6900 lbs.

BG-612R

6" Bench Grinder

- Designed to meet OSHA standards.
- 115 Volts, Single Phase, 60Hz, color - red.
- 1/3 Horsepower, 3600 Idle R.P.M.
- Two grinding wheels: 36 and 60 grit.
- Grinding wheel dimensions: 6" x 3/4" x 1/2".
- Guards are non-exhaust type.
- Supplied with 8 ft. three-conductor cord and plug.
- Furnished with BG-GA19 eyeshields and pressed tool rests and supports.

BG-GA10 Eyeshields - plexiglass size 5" x 4", pair.



Grinding Wheels

- For grinding and sharpening metals.
- High quality aluminum oxide abrasive grains make these long-lasting, fast-cutting wheels.
- 1/2" arbors.
- 6" diameter by 3/4" thickness.



PART NO.	GRIT	GRIT SIZE
VA-17521	Fine	100
VA-17522	Medium	60
VA-17523	Coarse	36

WD-0

Grinding Wheel Dresser

- For use on most grinding wheels up to 10" diameter - for dressing and truing the wheel.
- When cutters are worn, new cutters are easily inserted.

WD-0-1 Extra cutters



AN-01144

6" Face Crimped Wire Wheel Brush

- Applications include deburring, edge blending, flash removal (rubber and plastic parts), finishing for appearance, cleaning and rust removal and roughing for adhesion.
- Maximum desirable wire points at brush face.
- Highest quality oil tempered crimped wire.
- Low flexibility, fast cutting, long life.
- Uniform brushing action.
- Suggested Arbor Hole: 2".



WIRE SIZE	APPROX. FACE WIDTH	TRIM LENGTH	MAX. SAFE FREE SPEED
.014	1-1/8"	1-1/8"	6,000 RPM

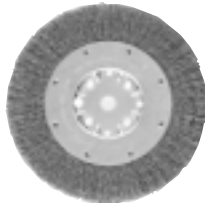
AN-37722 2" x 1/2" Arbor Adapter/AN-01144

AN-37723 2" x 5/8" Arbor Adapter/AN-01144

AN-01544

6" Face Crimped Wire Wheel Brush

- High performance, general purpose wheel.
- Heavily filled with high quality oil tempered crimped wire.
- Medium brushing face.
- Arbor design permits stacking for wide face brushing.
- Suggested Arbor Hole: 5/8" - 1/2".



WIRE SIZE	APPROX. FACE WIDTH	TRIM LENGTH	MAX. SAFE FREE SPEED
.014	3/4"	1-1/8"	6,000 RPM

6" Diameter Knot Type Wire Wheel Brushes

- Standard twist, medium face knot type wire wheel brushes with tufts twisted 2/3 of the length.
- Use for weld cleaning, weld spatter removal (cable), scale removal, cleaning, deburring, flash removal.
- High to medium flexibility.
- Highest quality oil tempered carbon wire.
- Face width: 1/2"
- Arbor hole: 5/8" - 1/2".
- Maximum Free Speed: 9,000 RPM.

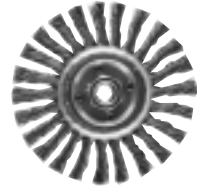


PART NO.	WIRE SIZE	PART NO.	WIRE SIZE
AN-13664	.0118	AN-13684	.016

AN-13704

Cable Twist Knot Type Wire Wheel Brush

- Cable twist has the tufts twisted for their entire length.
- Use for weld cleaning, weld spatter removal (cable), scale removal, roughing for adhesion, flash removal, stringer bead weld cleaning.
- High to medium flexibility.
- Use for extreme severe cleaning and removal of heavy encrustations.
- 6" diameter.
- Trim length: 1-7/16".
- Wire size: .025.
- Face width: 7/16".
- Faceplate width: 11/16".
- Arbor hole: 5/8" - 1/2".
- Maximum Free Speed: 9,000 RPM.



VI-1444-0308

FP160 MIG Welder

- Features a four-position welding power output control and infinite wire speed adjustment giving precise welding control.
- Quick change internal polarity adjustment makes changing from MIG (GMAW) to Flux Cored (FCAW) welding processes quick and easy.
- Rugged, portable, industrial design delivers the reliability and performance required to make it an ideal unit for general fabrication as well as farm, ranch, automotive, and light maintenance repairs.
- Use standard 230 volt single phase current.
- Welds with or without shielding gas, with solid or flux core wire.
- 2 lb. and 10 lb. wire spool capacity.
- Illuminated on/off power switch and illuminated thermal overload warning indicator.
- Thermostatic heat protection.
- Infinite wire speed control; Heavy duty wire drive system.



SPECIFICATIONS

Input Current Amps	20
Welding Output Voltage	30
Maximum Output	155 amps
Open Circuit Voltage	30
Rated Output Amps	130
Rated Duty Cycle	20%
Maximum Thickness Capacity	3/8"
Wire Feed Speed	95/905 IPM
Dimensions	12-3/4"H x 9-3/4"W x 17-3/8"D
Weight	60 lbs.

VI-1444-0407 WelderCart

- Built-in cylinder rack for safety.
- Storage tray for welding accessories.
- Works with the **VI-1444-0308** FP160 MIG Welder.
- Overall height: 28".

SZ-CT-250

Cornwell 200 Amp MIG Welder

- H.D. system for all automotive P.B.E. applications and light manufacturing.
- TIG welds 20 Ga. through 1/4" steels (no aluminum).
- Short arc, globular, spray transfer.
- .023 through .045 wire - all types.
- 30 - 250 amp range.
- Spool gun ready.
- Includes: combination power source/wire feeder, industrial wheel kit/cylinder rack, shielding gas regulator/flowmeter, 20 foot power input cable, 10 foot work cable with clamp, MIG torch with 10 foot cable (.030 wire), SPAT-SKAT Anti-Spatter spray, and parts kit.



SPECIFICATIONS

Primary Input	208/230 Volts, 1 Ph, 50/60 Hz
Primary Amps	33/30
Duty Cycle	60% @ 200 amps
Output	250 amps
Size	34"H x 14-1/2"W x 34-1/2"D.
Shipping Weight	175 lbs.

US-5500HT

Airless Plastic Welder



- For making quality repairs to virtually any type of automotive plastic including TPO and polypropylene.
- Higher welding temperatures and faster welding provided by 80 watt welding element.
- Requires 110V power source.
- Includes 7 types of standard plastic welding rod and Uni-Weld Ribbon universal repair rod.
- 80W welding element, two welding tips, reinforcing mesh, stainless steel wire brush, welder stand and instructional video tape included in a custom-molded plastic case.

- US-5003R1** Polyurethane Clear Welding Rod
- US-5003R2** Polypropylene Black Welding Rod
- US-5003R3** ABS White Welding Rod
- US-5003R4** Polyethylene Opaque Welding Rod
- US-5003R6** Nylon Opaque Welding Rod
- US-5003R7** Polycarbonate Opaque Welding Rod
- US-5003R10** Fiber-Flex Flat Sticks

RW-10000

Battery Operated MIG Welder

- Completely portable.
- Includes quick disconnect plugs, ground cable and clamp for maximum portability.
- 10' custom molded cable assembly.
- Polarity indicator lights - Green for reverse/gas, red for straight/flux core.
- Wire feed increases/decreases amperage.
- Welds up to 75' of 1/4" bead using two 31D marine batteries in series.
- Welds steel and stainless steel up to 1/2".
- Welds aluminum up to 3/4".
- DC voltage range: 18VDC - 36VDC.



RW-10250

Spoolgun

- Connects to MIG, STICK, or TIG welding machines, or to an inverter machine.
- Accepts DC output only (40 VDC or less), constant voltage preferred.
- 20' custom molded cable assembly.
- Power supply provided for motor control when connected to a machine.
- Easily connects to batteries with your ground cable (not supplied).
- LC 10 type connectors.



Common Features of RW-10000 and RW-10250:

- 200 amps available at 24VDC (batteries).
- 270 amps available at 36VDC (batteries).
- 100% Duty Cycle with gas at 24VDC.
- 70% Duty Cycle with Flux-core wire.
- Thumb wheel adjusts wire speed from 50"/min. to over 900"/min.
- Amperage range from 0 - 350 amps.
- Uses any 4" spool, wire sizes .023 - 3/64.
- Uses standard #2 Tweco consumables.
- Tough, high-impact and lightweight.
- Built-in gas flow control valve.
- Built-in stitch mode for thin metal.
- Black blow molded briefcase.

VI-1445-0047

Plasma Arc Cutting System



- Operates on standard 115V household current.
- Built-in compressor provides maximum portability.
- Pilot arc/drag torch system allows cutting of rusted, painted or coated surfaces without the need for prior surface preparation.
- 1/8" cutting capacity; Cuts mild steel, stainless steel, aluminum, copper or brass.
- Automatic torch restart system.
- Maximum output amps: 18; Rated output amps: 12.
- Dimensions: 10"H x 9"W x 16"D.
- Weight: 55 lbs.
- Comes complete with 20 ft. drag torch system, 6 ft. power cord (with plug), five (5) **VI-1445-0031** cutting tips, three (3) **VI-1445-0016** electrodes, one (1) gas distributor, and an instruction manual.

- VI-1445-0016** Electrodes for VI-1445-0047
- VI-1445-0031** Cutting Tips for VI-1445-0047 (5 Pack)

VI-0384-0240

Deluxe 250 Torch Outfit



- Equipped to provide versatility for cutting, welding, brazing and multiflame needs.
- Produces industrial temperatures of 5,620°F.
- Torch handle includes built-in reverse flow check valves for added protection against "reverse flow of gases."
- Solid brass and stainless steel construction provide extended trouble-free service.
- Includes a #0 welding nozzle with universal mixer and #0 cutting tip that welds up to 5/64" and cuts to 1/2".
- Also includes a torch handle, 250 series cutting attachment, single stage 250 series Oxygen and Acetylene regulators (2" gauges), dualine hose 3/16" x 20' (Grade R) Acetylene Only, Spark Lighter (Single Flint), and welding goggles/shade #5.

Accessories not included in kit:

VI-0324-0112 8MFA-250 Multiflame Heating Nozzle

VI-0331-0181 Cutting Tip (Size 1)

VI-0331-0182 Cutting Tip (Size 2)

VI-0384-0649

Portable Welding & Cutting Tote



- Torch handle with built-in reverse flow check valves.
- #2 Welding nozzle welds to 1/8".
- #0 Cutting tip cuts to 1/2".
- 3/16" x 12.5' dualine hose, goggles/shade #5, and striker included.
- 20 Cubic foot oxygen cylinder and 10 cubic foot acetylene cylinder (shipped empty) also included.
- Tip-nozzle flow chart.
- Trilingual instructions.
- Cylinder wrench with chain.
- Rugged, molded, plastic carrying case.
- Weight: 36 lbs.

ME-MT-11

Micro Torch

- Built-in safety lock with improved, easy to use self-ignition system.
- Flame temperature up to approximately 2500°F (1300°C).
- Wind-proof flame and water-resistant ignition.
- Compact size - unit fits easily into tool kit or first aid/survival kit.
- Child resistant ignition system.
- Built-in fuel level viewing window.



PW-PPMT

Micro Torch

- For welding, brazing, wire soldering, and more.
- Adjustable flame: 1/2" to 2-1/2".
- Electronic ignition.
- Easy refill-butane.
- One refill lasts up to two hours.
- Flame temperature up to 2,500°F.



PW-PPSK

Power Probe Soldering Kit



- Kit includes the following in a case: 3 soldering tips, 1 heat injection tip, 1 hot knife tip, 1 heat shield for shrink tube, rosin solder and sponge.

WC-LG400C

Soldering Gun

- 150-400 Watts, 120 volt heavy duty soldering gun for rugged use.
- Features a dual heating element that heats tip quickly and maintains high tip temperature during use.
- Trigger control provides instant response and power savings.
- Balanced pistol-grip and built-in probe light make work easier.
- Comes with 1/4" diameter pyramid tip.
- Maximum tip temperature: 1000°F.
- Length: 9-1/4".
- Weight: 15 oz.



WC-LG400TE 1/4" Tip and Element assembly

SNR-A1664

Velvet Shield® Welding Blanket



- Velvet Shield® welding blanket is made with a carbon fiber fabric that was developed from NASA technologies and is extremely fire and heat resistant.
- Versatile blanket is soft and lightweight, providing incredible ease-of-use.
- Provides protection from direct contact with weld splatter.
- Tough, tear-resistant material.
- Easy to clean — just shake, vacuum or blow metal particles out.
- Withstands temperatures up to 3000°F.
- ASTM E84-97a scores: Flame Spread Index = 7; Smoke Index = 4
- Meets and exceeds all standards of NFPA 701 (standard method of fire tests for flame resistant textiles and films*).

*As tested by ITS. Copies available upon request.

SNR-A7246

Welding Blanket

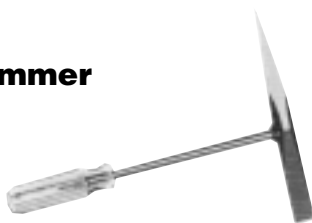


- Protects interiors, glass, and other areas from damage caused by nearby welding and grinding.
- Made of heat-cleaned fiberglass for economical, high temperature protection. Material is very pliable.
- Takes temperatures up to 1,000° F.
- Provides light to moderate splash protection.
- Size: 4 ft. x 6 ft.
- Weight: 18 oz.
- Tan in color.

OF-7003

Welder's Chipping Hammer

- Heat treated alloy steel assures long life.
- Pointed pick end.
- Comfortable plastic handle.
- Chisel end: 3/4".
- Length: 11-1/4"
- Weight: 17 oz.



GC-5011

Square Welding Torch

- Flint holder contains three flints that rotate to a new position as flint wears out.

GC-5003X Extra Flints



GC-3001

Universal Round File Lighter

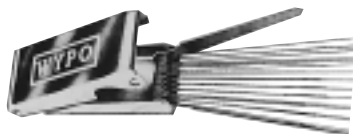
- Used for igniting acetylene welding and cutting torches, propane torches, Bunsen burners, gas stoves and appliances.
- Permanently affixed cup design traps gas for quick ignition.

GC-3001X Universal Single Flint Renewal



Welding Tip Cleaner Kits

- Set of 13 cleaners - sizes 6 through 26 and file.



PART NO.	DESCRIPTION
WY-13	Standard Kit - annular fine cleaners
WY-4	King Kit - extra long 4-1/2" fine cleaners

SNR-A519Y

Cornwell Welding Gloves, Blue

- Combines comfort and protection at an economical price.
- Full cotton lining with foam back.
- Made from select split cowhide - fully welted to protect the seams.
- One piece back - sewn in a gun-cut pattern with a wing thumb.
- Thumb strap increases durability at key wear point.
- Sewn with Kevlar thread.
- Cornwell Blue with Cornwell Ironman Logo.



SM-23230

Plugweld Pliers



- Copper alloy backing prevents burning through thin panels as weld will not stick.
- Plugweld pliers allow user to turn up the heat for better penetration without burn through, even if there is a pilot hole through the back panel.

CWI-30NB

Cornwell Hand/Nail Brushes

- Thirty (30) pieces of hand/nail brushes in a counter-top "fish bowl" container.
- Easy grip plastic handles.
- Tough, long lasting nylon bristles.



POW'RKLEEN® Hand Cleaner



- Waterless hand cleaner fortified with an antiseptic and conditioners.
- Helps prevent skin infections and dermatitis.
- Conditions and protects against drying, chapping and cracking.
- No kerosene, ammonia, alkali or harmful solvents.
- Non-toxic and non-flammable.

PART NO.	DESCRIPTION	TYPE
HC-503	4-1/2 pound can	Without pumice
HC-623	4-1/2 pound can	With pumice
HC-507	Dispenser/HC-503, HC-623	

HYD-68CB

Four Post Muffler Lift

[Similar to Model shown but standard ramp not alignment; also shown with optional 600 jack beams]



- 12,000 lb. capacity.
- 14-1/2 foot long runways for cars and light trucks.
- 22" wide runway to accommodate all vehicles.
- Automatic multilevel air operated locks, with 20 lock positions.
- Convenient single point lock release and control center.
- Built in hydraulic cylinder design means no overhead obstructions and doors open freely.
- Elevator quality cables throughout, safety tested to over 5 times their normal load.

HYDRA-LIFT has other units available. Contact your local Cornwell Dealer for complete details!

JD-20DC-B

Twenty Gallon Self-Evacuating Drain

- This economy model self-evacuating drain has the discharge hose permanently attached to the 20-gallon tank.
- Hose also serves as a sight gauge to show fluid level in tank.
- Includes a pre-set safety valve to prevent over-pressurization.
- 16" diameter funnel.
- Height adjusts from 48" to 78".
- Heavy duty 3" casters.



JOHN DOW INDUSTRIES has other units available. Contact your local Cornwell Dealer for complete details!

JD-JDI-18DCP

Poly Portable Oil Drain

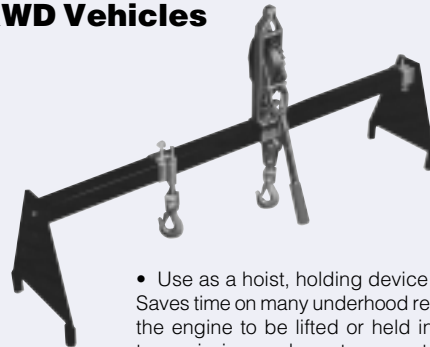
- 18 gallon portable oil drain.
- Red translucent poly tank allows for easy viewing of oil level.
- 18" diameter funnel with strainer.
- 4" heavy -duty casters.
- Evacuation spout and drain valve.
- Adjusts from 48" to 71".



JOHN DOW INDUSTRIES has other units available. Contact your local Cornwell Dealer for complete details!

JD-MP-1

Mini-Pic Underhood Engine and Transmission Hoist for FWD and RWD Vehicles

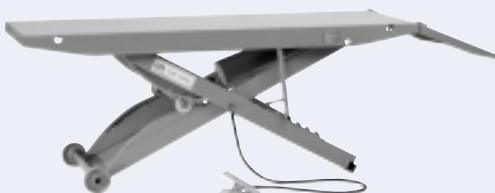


- Use as a hoist, holding device or engine tilter.
- Saves time on many underhood repair jobs requiring the engine to be lifted or held in place, including transmission work, motor mounts and spark plug replacement.
- Sets up in minutes and provides stability and safer engine support.

JOHN DOW INDUSTRIES has other units available. Contact your local Cornwell Dealer for complete details!

HY-10740

Motorcycle Air Lift



- Has a lifting capacity of 1000 lbs. making it ideal for working on motorcycles, ATVs, snowmobiles, garden tractors, appliances and any other heavy equipment.
- Raises project to a comfortable working height of 30-1/4".
- When lowered, it is only 7" high.

HANDY INDUSTRIES, LLC has other units available. Contact your local Cornwell Dealer for complete details!

JD-JDI-25HDC

25-Gallon Heavy-Duty Self-Evacuating Oil Drain

- Large 25-gallon capacity steel tank.
- 16" diameter funnel with expanded metal screen.
- Easily and quickly empties using regular shop air.
- Height adjustment from 50" to 70".
- Poly-molded tool tray for convenient tool storage.
- Heavy-duty 4" casters for stability and mobility.
- Positive height adjustment makes funnel easy to position.
- 6' quick-disconnect discharge hose.
- Sight tube shows fluid level in the tank.



JOHN DOW has other units available. Contact your local Cornwell Dealer for complete details!

JD-MK-1

Portable Exhaust Extraction System



- This fan is a practical and affordable solution for removing toxic exhaust fumes from auto repair facilities, motorcycle shops, small engine repair shops.
- High output suction fan captures fumes and discharges them safely up to 30 feet away.
- 3/4 HP fan produces 700 cfm air flow.
- Uses standard 110V current.
- Mounted on tough molded polyethylene "flow thru" case.
- Mobile base for ease of positioning.
- Height position controlled by spring-loaded cam lock.
- Includes 30 ft. of discharge hose and "Y" hose adapter.

JOHN DOW has other units available. Contact your local Cornwell Dealer for complete details!

OW-1823

12-Ton Press with Bottle Jack

- Unit comes with Merit Series bottle jack.
- Handles pressing, straightening or bending chores, or removal or installation of gears bearings and bushing.
- Frame is made in the U.S.A.
- Stroke: 5-7/8".
- # Pump strokes to extend piston 1 inch: 17.
- Pump handle effort at rated capacity: 85 lbs.
- Height with screw extended: 18-7/8".



OTC has other units available. Contact your local Cornwell Dealer for complete details!

JD-JDI-25GC

25 Gallon Gas Caddy

- Makes fuel transfer safe and easy.
- Ideal for auto repair shops where fuel tanks need to be drained before repairs or removal.
- Two-way heavy duty rotary pump for either siphoning or dispensing.
- Fill level gauge.
- Ground wire and clamp.
- Fire-screened vent and filler neck combination.
- Dolly handle for ease of moving.
- Complies with OSHA guidelines.
- Dimensions: 46"H with pump x 21"W x 21"D.
- Wheels 8" x 2.75".



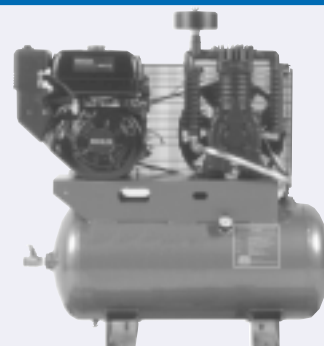
JOHN DOW has other units available. Contact your local Cornwell Dealer for complete details!

ACC-3G3HKL

12HP Two-Stage Engine Powered Reciprocating Compressor

ABAC/American IMC, Inc. has other units available. Contact your local Cornwell Dealer for complete details!

- 12 Volt electric start.
- 12 Volt Alternator.
- Start Key/Panel.
- Oil Monitor.
- Engine slowdown (pilot valve).
- Fully enclosed belt guard.
- Pull-type tank drain on 30 gallon tank.
- ASME safety valves.
- Tank discharge valve.



OW-6509**3/8" x 5/16" Fuel
Line Disconnect**

¥ Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel filter, fuel rails, or sending units. These tools are designed to access the center port on GM fuel tank sending units. • For 3/8" x 5/16" applications; will also service 1999 thru current GM pickups, and 2000 thru current Suburban, Tahoe, and Yukon gasoline vehicles.

OW-6511**3/8" x 1/2" Fuel
Line Disconnect**

• Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel filter, fuel rails, or sending units. These tools are designed to access the center port on GM fuel tank sending units. • For 3/8" x 1/2" applications; will also service 2001 thru current 3/4 and 1-ton trucks with the Duramax Diesel engines.

OW-4528**Clutch
Alignment
Tool Set**

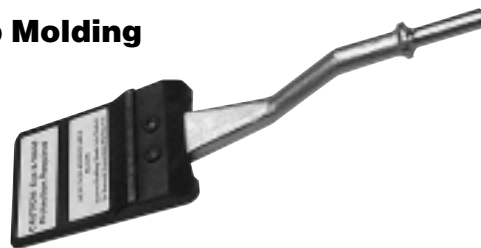
• Essential for clutch installation on virtually all cars and light-duty trucks. Aligns clutch plate properly by using tapered cones and pilot adapters. • Includes seven fractional pilot adapters, one clutch disc centering adapter and one alignment shaft. • Includes five metric pilot adapters, two clutch disc centering adapters and one alignment shaft. • Housed in a blow-molded storage case.

PART NO.	DESCRIPTION
OW-4528-1	SAE Pilot Set
OW-4528-2	SAE Shaft/Aligner Set
OW-4528-3	Metric Pilot Set
OW-4528-4	Metric Shaft/Aligner Set

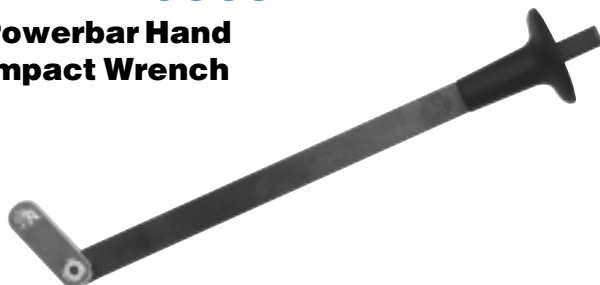
OW-4533**GM W-Body Strut
Tool Kit Weight**

• Includes one T50 TORX® bit, a universal drive handle, and a double-ended socket. • Use one end of the socket to remove/install the jounce bumper; the other end to remove/install the strut cap nut. • Works on GM W-body vehicles.

PART NO.	DESCRIPTION
OW-4533-1	Double Ended Socket
OW-4533-2	Drive Handle

SM-21540**E-Z Strip Molding
Tool**

¥ When used with an air hammer, removes body moldings quicker and easier than ever before. • With proper use, molding can be saved without damage. • Reduces body damage. • Screws holding blade are now coined to hold blade tight.

ABW-70865**Powerbar Hand
Impact Wrench**

• 1/2" drive tools allows access to restricted under bonnet areas where air impact wrench won't fit. • Remove and replace harmonic Balancer pulleys without removing the radiator. • Impact force "shocks" bolt loose. • No compressed air required. • Stop burning out starter motors. • High torque generated up to tested 600 ft.-lbs. of torque, dependent on force applied. • Optimum operating angle: 90° to 120°. • Recommended for use with impact sockets. • Length: 560MM.

OW-4512**Snap Ring
Pliers Set,
Internal/
External**

• For internal or external snap rings; thumbscrew permits quick conversion. Made of heavy-gauge tempered steel. Also includes two stainless steel handled picks. • Contained in a blow-molded plastic storage case.

Set consists of the following:

PART NO.	TIP	ANGLE
OW-4512-1	.090" tip	straight pliers
OW-4512-2	.090" tip	90° pliers
OW-4512-3	.070" tip	straight pliers
OW-4512-4	.070" tip	90° pliers
OW-4512-5	.047" tip	straight pliers
OW-4512-6	.047" tip	90° pliers
OW-4512-7	.038" tip	straight pliers
OW-4512-8	.038" tip	90° pliers
OW-4512-9	-	Straight tip pick
OW-4512-10	-	90° tip pick

A

ABS Tools	230-231
ABS Update Kit	149, 151
Abrasive Discs	254
Accessories	
Air Tools	249, 251-254
Cordless Tool	263
Diagnostic	154-158
Drill	252
Electrical Tools	264-265
Oil & Lube	211-212
Painting	290
Pneumatic	245, 256
Spray Gun	290
Testers	154-158
Tool Box	15-20
Adaptors	
Air Conditioning	190-191, 194-195
Battery	157, 161
Cooling System	202-204
DA Adapter	249
Electrical Test	157-158, 161
Extension	61
Golden Spike	277
Hand	31, 48, 60, 63-64
Hex Socket	90
Impact	48, 63-64
Oil & Lube	211
Power	60
Quick-Coupler	195-196
Adjustable Wrenches	78
Air Bag Scan Tools	151
Air Blowers	256
Air Brushes	291
Air Chucks	252
Air Compressors	261-262, 291
AIR CONDITIONING	188-206
Adapters	190-191, 194-195
Can Tap	196
Charging Hoses	194
Charging Stations	189-190
Clutch Plate Removers	196-197
Clutch Tools	197
Dye	199-200
Fittings, Port	190
Fuel Line Tools	196
Leak Detectors	192, 199
Manifold Gauges	193
Manifold Repl. Parts Kit	194
Non-contact Thermometers	198
Oil Injectors	190, 199
Orifice Tube Service	197
Plate Removers	197
Quick Change Filter	190
Recycle/Recover/Recharging	189-190
Refrigerant Units	189-190
Removinator™	190
Retrofit Kits	190
Service Couplers	195-196
Sockets	196
Spring Lock Tool	196
Thermometers	197-198
Vacuum Pump (Air)	191-192
Valve Service	191, 194-196
Wrenches	197
Air Conditioning Service Tools	190-199
Air Control Unit	290
Air Couplers	257-259
Air Dryer	290
Air Fittings	255
Air Hose	255-256
Air Line Filter	254-255, 290

Air Manifold	255
Air Processing	254-256
Air Regulator	255, 290
Air Respirator	302
Air Riveter	282
Air Tank Conversion Kit	255
Air Tool Oil	252
Air Tool Oiler	255
Air Tool Covers	253
Air Tool Grease	252
Air Tools	239-254
Accessories	249, 251-254
Blow Guns	256-257
Chisels	245, 259-261
Chisel Retainers	253
Cut-Off Tool	249-250
Cutting	249-250
Die Grinders	247-249
Drills	251
Engraving Pen	251
Hammers	244-245
Hose	255
Impact Wrench Grease	252
Nibbler	250
Polisher	247
Punch/Flange Tool	250
Ratchets	242-244
Sanders	245-247
Saw	250
Wrenches	239-242
Airless Plastic Welder	304
Airlift™	201
Alignment & Suspension	215-218
All-Angle Clamp	274
Allen Wrenches	79-82
Alligator Clips	155
Alligator Pliers	110
Alternator Tester	185
Aluminum Burs	271-272
Angle Wrenches	74
Antenna Nut Socket Set	287
Antifreeze Drain Pan	206, 209
Antifreeze Tools	206
Aprons	298
Arbors	253, 270
Asian Import	149, 152
Awls	104
Axle	
Drain Pan	225
Puller	218-221
Rethreader	134

B

Ball Hex Bit Sockets	94, 98-99
Ball Joint Tool	130, 214-215, 217, 260
Ball Pein Hammers	101
Balldriver® Wrenches	80
Banjo Bolt Socket	170
Barbed Fittings	257
Batteries (Flashlight)	145, 263
Battery Powered Tools	242, 262
Battery Service	185-187
Adapter	157, 161
Cable Cutter	187
Cables	187
Chargers/Starters	185-186
Fillers	187
Generator	186
Hydrometers	187
Jumpers	186-187
Lifter	187
Load Tester	185
Pliers	187

Socket System	186
Terminal Tools	187
Testers	185-186
Wrench	187
Bean Bag Parts Tray	16
Bearing	
Race Drivers	224
Pullers	220
Splitters	221
Bearing Packer	212
Bearing Race Punches	85
Belt Tightener	180-181
Bench Grinder	303
Bend-A-Light®	144
Bench Tools & Accessories	302-303
Benches, Work	288
Bit Driver	90-91
Bit Drivers & Sets (SAE & Metric)	90-101
Bit Holder Sockets	101
Bit Holders	19, 90-91, 101
Bit Ratcheting Screwdriver	90-91
Bits Sets	90-96
Ball Hex	94
Combination	93-94
Disc Brake Caliper	92
Extra Long Hex	92-93
Hex Bit	92-93
Impact Driver	91
Inverted Torx®	96
Master	95
Metric	93
Overdriver®	90
Power Bit Assortment	91
Ratcheting Driver	91
Ratcheting Screwdriver	90-91
Rollerdriver®	90
Skewdriver®	90
Tamperproof	96
Torx®	95-96
Torx® Plus	95
Triple Square	96
Bit Sockets	94, 97-99
Ball	94, 98
Extra Long	98-99
Extra Long Ball	98-99
Hex Bit	97
Metric Ball	98-99
Metric	98
Bit Wrench, Offset	91
Bite-Tite™ Clamps	274-275
Bits, Insert	97-100
Ball Hex	98
Clutch Head	100
Extra Long Hex	97-98
Hex	97-98
Inverted Torx®	99
Metric	97-98
Phillips®	100
Pozidriv®	100
Reduced Phillips®	100
Slotted	100
Square Recess	100
Tamperproof	99-100
Torx®	99-100, 211
Torx® Plus	99
Torx® Tamper Resistant	100
Triple Square	99
Black Chrome Pliers	107
Blacksmith Hammers	102
Blades (Hacksaw)	122
Blanket, Welding	305-306
Block Leak Test	201
Blow Guns	256-257

"Blue Monster" Jack	293
Body Hammers	278-279
Bent Door Skin	278
Bumping	278
Chisel	279
Cross Peen	278
Finishing	278-279
Grooving	279
Handles	279
Pick	278-279
Sets	278
Shrinking	279
Body Service	273-291
Clamps	274-275, 281
Dent Pullers	276-277, 287
Dollies	280
Door & Windshield	284-287
Files & Holders	282-283
Hammers	278-279
Headlight Aiming	291
Heat Gun	290-291
Hydraulic Power Sets	273
Jack	274
Knocker Sets	277
Lock Tools	283-284
Lock Reforming Tool	276
Mini-Ram	274
Miscellaneous	287-288
MO-Clamps	275-276
Molding Tools	286
Nib File	283
Painting	289-291
Panel Cutters	281
Picks & Pull Rods	279
Portable Work Stand	288
Power-Pull	274
Pulling & Straightening	275-276
Quarter Pullers	276
Rivet Tools	282
Sanding Blocks	283
Sanding & Filing	282-283
Sheet Metal Hook Set	275
Shot Dolly	280
Snips	280-281
Spoons	280
Spray Guns	289-290
Stud Welders	277
Suction Cups	287
Tool Sets	277-278
Vise-Grip®, Locking	281
Window Holders	287
Bolt Remover Set	134, 138
Bonnet Cleaner	264
Booster Cables	186-187
Boots	299
Bottle Jack	308
Box Wrenches	72-73, 76-79, 91
Brake Service	229-235
ABS Tools	230-231
Adjusting Tools	232
Bendix Brake Spring Tools	233
Bleeders	166, 229-231
Caliper Tools	92, 128-130, 231, 233
Carbide Cutting Bits	234
Code Retrieval	157
Cylinder Hones	234-235
Cylinder Remover	233
Disc Tools	92, 129-130, 230-232
Drum Silencer	234
Emergency Brake Tools	234
Equalizer™	229
Fluid Meter	230
Fluid Test Strips	230
Gauge	231-232
Lining	231-232
Master Cylinder Bleeder Kit	229-230
Micrometers	129-130
Parking	234
Pedal Press	235

Piston Tool	231
Pliers	234
Refiller Kits	229
Rotor Gauge	130
Rotor Silencer	234
Sets	229-230, 232
Silencer Pads	234
Socket	53, 231
Spring Tools	232-233
Wrenches	231
Brass Hammers	102
Brass Punch	84-85
Brass Pin Punches	84-85
Brass Taper Punch	85
Breaker Bars	48, 60, 64
Brushes	
Battery	187
Cummins Diesel	176
Detroit Diesel	176
End	270-271
Hand/Nail	306
Injector	176
Parts Cleaning	297
Stem Mounted	270-271
Spray Gun Cleaning	290
Wire	270-271, 297
Wire Wheel	303
Bucket Blaster	296
Budd Wheel Sockets	63, 226-227
Burs	271-272
Bushing	212

C

C-Clamps	114, 281, 302
C-Clamps (Vise-Grip®)	114, 281
Cabinet Mat/Pad	17, 20
Cabinet Screwdrivers	88
Cabinet (Blast)	296
Cabinets (Tool)	7, 9, 11, 13
Cable Cutter	107, 112
Cable Kits (Diagnostic)	149
Import	149
ABS	149
Caliper Tools	92, 128-129, 231-233
Cam & Crankshaft	175
Cam Lock	183
Cam Tool Kit	182
Camber Adjusting Tool	216
Can Tap	196
Canopies	6, 8, 11
Cantilever Mobile Tool Box	16
Cape Chisels	84-85
Carbolic™ Tools	171
Carbide Burs	271-272
Carbide Cutting Bits	234
CarbonClean®	169
Carbon Brushes	270
Carbon Scrapers	105
Carburetor	170-171
Adjusting Tools	170-171
Sockets	170-171
Tool Sets	171
Wrenches	170-171
Carpal Tunnel Gloves	299
Carry Tool Boxes	16
Carts	15
Center Punches	84-85
Chain Clamp	117
Chains & Clamps	275-276
Chargers (Battery)	185-186, 263
Charging Hoses (Air Conditioning)	194
Charging Stations	189-190
Charging System Analyzer	153, 158
ChassisEAR™	162
Chests (Tool)	7, 9, 13-14
Chipping Hammers	103
Chisels	
Hand	84-85
Holder	85

Power	245, 252-253, 259-261
Quick Change Retainers	253
Sets	84, 245, 259
Chuck (Keyless)	252
Chuck (Tire)	223
Chuck Keys	264
Chucks (Air)	252
Circuit Testers	156, 159-162
Clamp, Line (Flexible)	121-122
Clamp, Chain	117
Clamp, Spring	118
Clamps (Bench)	302
Clamps (Body)	274-275, 281
Clamshell Spring Compressor	218
Clip Tools	285-286
Clutch	212-215
A/C Tools	196-197
Alignment Tool	214, 309
Fan	204-206
Spring Compressor	215
Clutch Plate Removers	196-197
Cobalt Drills	137, 268
Code Retrieval Tools	151, 157-158, 160
Coil Adapters	157
Coil Spring Compressor	217-218
Cold Chek®	206
Combination Wrenches	66-72, 75-78
COMMON SERVICE	87-146
Compartment Tools (Engine)	180-184
Compo-Cast® Hammers	101
Compression Testers	171-172
Compressor	308
Compressors (Air)	261, 291
Compressors (Piston Ring)	174
Compressors (Strut Spring)	217-218
Compressors (Valve Spring)	175
Computer Code Access Tool	157-158
Coolant Test Strips	206
Cooling System	199-206
Adapters	202-204
Fan Clutch	204-206
Leak Detection	199-201
Pressure Cap	202-204
System Testers	202-204
Cordless Tools	142, 242, 262-263
Batteries	263
Charger	263
Compressor	262
Drill Kit	262
Flashlights	142, 262-263
Impact Wrench	242, 263
Inflator	262
Cotter Pin Pullers	221
Couplers	195-196, 212, 257-259
Covered Carts	15
Covers	
Air Tool	253
Fender	127
Tool Chest	20
Crankshaft Damper Puller Inserts	219-220
Crankshaft Turning Sockets	175
Creepers	127-128
Creeper Seats	128
Crimpers	111-113
Crowfoot Wrenches-Open End, Flarenut	34-35, 41-42
Current Indicators	158
Cut-Off Wheels	252
Cut-Off Tool	249-250
Cutting	103, 122-126, 259-261
Air	249-250
Arbors	253
Files	126
Gasket	103
Hole Saws	270
Knives	122-125
Pliers	111-114
Pneumatic Chisels	259-261
Saws	122, 250

Snips	280-281
Spotweld	259, 269
Tubing & Exhaust	236-237
Utility Knives	122
Cutting Tools	
Hand	122-125
Power	249-250
Cutting & Welding Outfit	304-305
CV Boot Tools	226
CV Circclip Tool	226
Cylinder	
Bore Gauge	130
Deglazing	174
Groove Cleaner	175
Hones	174, 176, 234-235
Leak Tester	172-173

D

Dead Blow Hammers	102, 174
Deburring	271-272
Deglazing Tools	174
Dent Pullers	276-27, 287
Detergent	169

DIAGNOSTIC 147-165

5-Gas Module	150
ABS Scan Tool	151
ABS Update Kit	149, 151
Accessories	155-158
Air Bag	151
Asian Import	149, 152
Automotive Meter	152-154
Charging System Analyzer	153, 158
ChassisEAR™	162
Circuit Testers	156, 159-162
Code Retrieval Tools	151, 157-158, 160
EFI Quick Probe	161
Flexscope	163
Fuel Injector Tester	158
I-Pro Asian	152
Ignition	152
Ignition & Plug	162-165
Ignition Coil	157
Ignition Tester	152
Import	148-149
Inductive Pick Up	155
Labscope	150, 152
Listening Tools	162
Manuals	184
Monitors	148-149
Multimeters	152-155
OBD II	150-151
Personal Data Assistant (PDA)	150
Piercing Test Lead	155-156
Power/Ground Outlet	158
ProVision	163
Scan Tools	148-152
Scope Module	151
SmarTach+™ Probe	162
Small Engine	154
Software	149-150
System Analyzer	153, 158
Tachometer	154, 162
Tech/Dat	152
Tech/Force	148-149
Tech-Mate	150
Tech/Trace	150
Terminal Tools	161-162
Test Leads	155-161
Testers	152-155, 158, 162
Thermocouple Module	155
Timing & Tach	159
TracerEAR™	162
Versa Tach	154
VisorNeo™	150
Diagonal Pliers	106-107, 111
Dial Calipers	128-129
Dial Indicator	130
Dial Torque Wrenches	82-83
Diamond Chisels	84-85

Die Grinders	247-249
Die Socket	139
Die Stock	134
Dies	131-134
Dies (Metric)	131-133
Diesel Tester	167, 171-172
Diesel Tools	167, 171-172
Digital Multimeters	153-155
Digital Pressure Gauges	221-223
Disc Brake Caliper Set	92
Disc Brake Tools	128-130, 230-232
Disc Grinder (Electric)	264
Disc Rotor Gauge	130
Disc Sander (Air)	245-247
Disconnect Tools (Fuel Line)	168-170
Disconnect Tools (Transmission)	213-214
Distributor Tools	173-174
Dollies (Body)	280
Dolly, Wheel	295
Door Buzzer Tools	284
Door Frame Puller	274
Door Jammer	284
Door & Trunk Lock Tool	276
Door & Windshield	284-287
Double-End Flare Nut Wrench	75-76
Drag Link Sockets	48, 64
Drain, Self-evacuating	307-308
Drain Pan	206, 209, 225
Drain Plug Sockets	51
Drawer Dividers	17
Drawer Liners	17, 20
Drawers, Accessory	15
Drift Punches	84-85
Drill Adaptor Kit	249
Drill Bits & Sets	137, 265-269
Cobalt	137, 268
Double End	266
High Speed Steel	265-267
Left Hand	137, 266
Pilot	270
Reduced Shank	266
Sharpeners	265
Sidewinder™	267
Step	268-269
Titanium	268-269
Unibit®	268-269
Drill Chucks	252
Drill Chuck Keys	264
Drill Sharpeners	265
Drilling Hammer	103
Drills (Air)	251
Drills (Electric)	262
Drive Line	212-215
DRIVE TOOLS (SAE & Metric) 21-64	
1/4" Drive	22-31
3/8" Drive	32-49
1/2" Drive	50-61
3/4" Drive	62-64
1" Drive	64
Driver (Pin Retainer)	60
Drop Lights	139-142
Dye Cleaner	200
Dyes, Coolant	199-200
Dynaswivel®	255

E

EFI Quick Probe	161
Electric Tools	242, 263-265
Accessories	264-265
Cordless	242, 263
Emergency Brake Tools	234
End Brushes	270-271
Engine	162-176
Compartment Tools	180-184
Crane	295
Diesel	167, 171-172
Distributor Service	173-174
Feeler Gauges	165
Fuel Injection/Fuel Line	166-169, 196

Fuel Management	168-171
Hoist	307
Lifting	180, 293-295
Manuals	166, 184
Moving Tool	180
Piston	174-175
Plug Service	164-165
Pullers	176-180
Stand	180, 293-294
Steering & Pump Pullers	176-180
Tachometer	174
TDC Whistle	173
Testers	154, 172
Tilter	180
Vacuum Testers	166-167
Valve	175-176
Engine Porting Kit	254
Engine Sling	180, 294
Engineer's Hammers	102
Engraver	104, 251
Exhaust	235-237
Cutters	236
Extraction System	308
Pressure Tester	237
Sockets	237
Tailpipe Tools	235-237
Extensions	30-31, 49, 61, 64
Adaptors	61
Ball-Type	30, 49, 61, 64, 227
Flexible	30, 48
Hex Bit	91
Industrial Finish	31, 49, 61, 64
Locking-Type	30, 49, 61
Magnetic	90
Power	31, 49, 61
Sets	30-31, 49, 61
Wobble	31, 49, 61
Extractors	136-138
Eyewear	200, 299-300

F

Face Shields	302
Fan (Portable)	256
Fan Clutch Tools	204-206
Fault Finder	161
Feeler Gauges	165
Fender Covers	127
Fender Fixer	276
Ferrules	257
Fiberoptic Scopes	163
Figure Stamps	103
Files	126, 282-283
Body	282-283
Card	126
Handles	126, 283
Sets	126
Fillers (Battery)	187
Filter (Air Line)	254-255
Filter, Quick Change	190
Flange Type Pullers	219-221
Flare Nut Wrenches	34-35, 41-42, 75-76
Flaring Tools	235-237
Flashlights	142-144, 263
Batteries	145, 263
Bend-A-Light®	144
Mag-Lite®	143-144
Mitylite®	142
Rechargeable	142
Flat Band Clamp Pliers	121-122
Flat Chisels	84-85
Flat Tip Screwdrivers	88-89
Flex Breaker Bars	48, 60, 64
Flex Head Ratchets	29, 46-48, 59
Flex Head Wrenches	67
Flex Hones®	176, 235
Flex Ratcheting Wrench	78
Flexible Drive Extensions	30, 48
Flexscope	163
FLEX-Lite	201

Flints	306
Floor Jacks	293
Fluid Evacuators	166
Fluid Meter	230
Fluorescent Lights	140-142
Flywheel Turner	183
Fold-Up Hex Key Wrenches	81-82
Ford Fan Clutch Wrench	204-205
Ford Radio Removal Tool	288
Frame Hammer	275
Frame Puller	274
Freeze Plug Tools	183
Fuel Ignition Troubleshooter	162
Fuel Injection	167-168
Fuel Injector Tester	158, 167
Fuel Inlet Wrench	170
Fuel Line Tools	166-169, 196, 309
Fuel Management	168-171
Full-Fielder	158
Funnel Buddy	210
Funnels	206, 209-210
Fuse Block Tools	158
Fuse Puller	158

G

Gas Caddy	308
Gasket Cutter Set	103
Gauges	
Air Conditioning	193, 201
Brake	130, 231-232
Compression	171-172
Cylinder Bore	130
Digital Tire Pressure	221-223
Diesel Compression	172
Engine Oil Pressure	172-173
Feeler	165
Fuel Injection Pressure	168
Manifold	193
Screw Pitch	135
Smart	201
Spark Plug	165
Thread	135
Tire	221-223, 231
Transmission Fluid Pressure	172-173
Wheel Alignment	215
Gearless Driver	91
Generator, Power (Battery)	186
Glasses	200, 299-300
Breeze	299
Safety Glasses	299-300
UV	200
NASCAR®	300
NASCAR II®	300
Sport	300
Sunglasses	300
V1000	300
Veratti	300
Gloves & Sleeves	298-299, 306
Carpal Tunnel	299
Disposable	298
Holder	298
Hot Sleeve	298
Latex	298
Leather Work	298
M-Pact	299
Mechanix	299
Nitrile	298
Powder Free	298
Welding	306
Glove Box Holder	298
Goggles	302
Golden Spike	277
Gravity Feed Spray Guns	289
Grease, Impact Wrench	252
Grease Guns (Hand)	210-211, 252
Adapter	211
Continuous Shot	210
Hose	211
Lever Action	210

Mini	211
Pistol Grip	210-211
Single Shot	211
Suction	211
Grease Gun Accessories	211
"Great Test Leads™"	156
Grinders	247-249, 264
Grinding Tools	
Bench	303
Burs	271-272
Die	247-249, 264
Face Shield	302
Grinding Discs	254
Grinding Wheels	303
Grinding Wheel Dressers	303
Gripper Clamps	275
Gripper Plier Set	108

H

Hacksaw Frames & Blades	122
Half Moon Wrenches	79
Halogen Leak Detectors	192
Hammers	101-103, 244-245, 278-279
Air	244-245
Ball Pein	101
Blacksmith	102
Body	278-279
Brass	102
Chipping	103, 306
Compo-Cast®	101
Dead Blow	102, 174
Drilling	103
Engineer's	102
Fiberglass Handle	101, 278-279
Handles	103, 279
Nylon Face	102
Piston	102, 174
Rubber Mallets	103
Sets	101
Sledge	102-103
Slimline	102
Hand Cleaner	306
Hand/Nail Brushes	306
Handles	
File	126
Hammer	103
Hammer (Body)	279
Hang-On Side Cabinets	7, 9, 13-14
Harmonic Balancer Tools	176-178
Hawkeye Jr. Leak Detection	199-200
Headlight Aiming	291
Hearing Protector	302
Heat Gun	290-291
Heat Sleeve	298
Heater Hose Disconnect Tool	204
Heating Unit (Portable Fan)	256
Helmets	301
Hex Bit Sets	92-94
Ball Hex	94
Combination	93-94
Extra Long Hex	92-93
Hex Bit	92-93
Hex Bit Sockets	98-99
Ball	98
Extra Long	98-99
Extra Long Ball	98-99
Hex Bit	97
Metric Ball	98-99
Metric	98
Hex Key Wrenches	79-82
Hex Keys (T-handle)	81
Hex Socket Adapter	90
Hi-Viz Jump Leads™	156
High Performance Wrenches	73
Holder, Disc	254
Holder, Hex Bit	19, 90, 101
Holder, Punch & Chisel	85
Holder, Safety Chuck	252
Holder, Spray Gun	290

Holders, Tool	15-19
Hole Punch	269
Hole Saws	270
Hones (Brakes)	234-235
Hones (Engine)	174, 176
Hones (GATCO)	126
Hood Holder	288
Hood Prop	288
Hook & Pick Set	104
Hooks, Body	275-276
Horizontal Lockers	6, 8, 11
Hose Clamp Pliers	121-122
Hose Cutter	112
Hose Magnet	255
Hose Reel	255
Hoses	
Air	255-256
Air Brush	191
Charging	194
Clamp Tools	121-122
Ferrules, Brass	257
Fittings	255
Grease	211
Pinchers	121, 169
Swivel	256
Hub Cap Kit	228
Hub Cap Plier	226
Hub Release Tools	217, 220-221
Hub-Rotor-Axle Puller	220
Hub-Pro Bearing/Hub Kit	221
Hustler Stick	274
HVLP Spray Guns	289
Hydraulic Power Sets	273
Hydraulic Jacks	293
Hydraulic Tappet Remover	176
Hydrometers	187, 206

I

I-Pro Asia Scan Tool	152
Ignition & Plug	152, 162-165
Coil Adaptors & Testers	157
KV Probe	152
Module Tester	152
Module Wrench (Ford)	163
Plier	113
Spark Tester	163-164
Testers	152
Impact Attachments	48, 63-64
Impact Driver	91
Impact Driver Set	91
Impact Sockets	
3/4" Drive	62-63
Impact Sockets, Power	
1/4" Drive	24, 27-28
3/8" Drive	35-37, 42-44
1/2" Drive	51-53, 56-58
Impact Wrenches, Air	239-242, 309
Import, Diagnostic	149
Inductive Pickup	155
Inductive Timing Light	159
Inflate-A-Wedge™	283
Inflator	262
Infrared Thermometers	198
Injector Brushes	176
Injector Tester, Fuel	158
Insert Bit Sets	90-96
Ball Hex	94
Combination	93-94
Disc Brake Caliper	92
Extra Long Hex	92-93
Hex Bit	92-93
Impact Driver	91
Inverted Torx®	96
Master	95
Metric	93
Overdriver®	90
Power Bit Assortment	91
Ratcheting Driver	91
Ratcheting Screwdriver	90-91

Rollerdriver®	90
Skewdriver®	90
Tamperproof	96
Torx®	95-96
Torx® Plus	95
Triple Square	96
Insert Bits	97-100
Ball Hex	98
Clutch Head	100
Extra Long Hex	97-98
Hex	97-98
Inverted Torx®	99
Metric	97-98
Phillips®	100
Pozidriv®	100
Reduced Phillips®	100
Slotted	100
Square Recess	100
Tamperproof	99-100
Torx®	99-100
Torx® Plus	99
Torx® Tamper Resistant	100
Triple Square	99
Inspection & Pick Up	145-146
Inspection Mirror	145
Insulation Piercing Sets	155-161
Inverted Bit Sets	96
Inverted Hex Bits	96, 99
Inverters	265

J

Jacks	
Body	274
Bottle	308
Hydraulic	293
Transmission	294
Stands	293-295
Jacobs® Chucks	252
Jacobs Engine Brake Socket	53, 231
Jaw-Type Pullers	219-220
Jump Starters	186
Jump-N-Carry®	186
Jumpers/Cables	186-187
Jumper Leads	156-157

K

Key Caddy	17
Key Ring	17
Keyholder	264
Keyless Chuck	252
Knee Pads	127
Knives	122-125
14K Summit Series	124
BladeLOCK™ 2	123
Carson M16	124
Cascade	124
Denali	124
Displays	122-123
Fixed Falcon	123
Hones	126
K.I.S.S. in the Dark	123
Lightfoot M1	24
Long's Peak	124
M16	124-125
Midnight Avatar	125
Mt. Ranier	124
Mt. Shasta	124
Old Timer®	125
P.E.C.K. in the Dark	123
Pocket	122-125
Putty	106
Rollock™	123
Sharpener	126
Survival	125
Tough™ Tool	125
Tough Grip™	125
Utility	122, 125
Zytel®	124
Knocker Set	277

KV Tester	152-153
-----------	---------

L

Labsopes	150, 152
Lady Foot Pry Bars	86
Lamps, Inspection (Cooling)	199-200
Late New Products	309
Clutch Alignment	309
E-Z Strip Molding Tool	309
Fuel Line Disconnect Tools	309
Powerbar Hand Impact Wrench	309
Snap Ring Pliers Set	309
Strut Tool Kit	309
Leak Detector (Air Conditioning)	192, 199-201
LeakFinder™	201
LeakTamer™	169
Letter Stamps	103
Lift Drain	209
Lift, Four-Post	307
Lift, Motorcycle	307
Lifting	180, 217, 293-295
Battery	187
"Blue Monster"	293
Chain	180
Engine	180
Engine Crane	295
Engine Sling	180, 294
Engine Stand	293-294
Engine Tilter	180
Floor Jack	293
Jacks	293-295
Pit Jack	295
Plate	180
Service Jacks	293-295
Sling	180, 294
Stand	180, 293-295
Transmission Jack	294
Tripod Stand	295
Underhoist Stand	295
Vehicle Stands	293
Wheel Dolly Set	295
Lighting	139-144
Angle	139-141
Bend-A-Light®	144
Canopy	139
Conversion	141
Drop	139-142
Flashlights	142-144, 263
Fluorescent	140-142, 263
Inspection	144
Leak Detection	199-202
LED	140-141, 143
Lightwave	144
Mag-Lites®	143-144
Magnum Force™	142
Mitylite™	142
Pen Lights	144
Plug-In	141
Rechargeable	142, 263
Reel	139-140
Spotlight	144
Stinger®	143
Superdashlight™	141
Swivel-Lite™	142
Trouble Light	139
UV Lamps	199-200
Underhood	139
Worklite™	140-141
X-2 Twin Tube	141
Lining Up Bars	86
Lip Seal Tools	215
Listening Tools	162
Lock Pick Sets	284
Lock Plate Remover	179
Lock Reformer	276
Lock Ring Pliers	119-120, 214
Lock Tools	283-284
Lockers	6, 8, 11, 13
Locking Extensions	30, 49, 61

Locking Pins (Impact Sockets)	63-64
Locking Pliers	115-118
Locking Wrenches	115, 118
Locknut Sockets	224-225
Lockout Tool	283-284
Lube & Oil	208-212
Lubricant (Air Tool)	252
Lug Sockets	59, 227

M

MacPherson Strut Tool	217-218
Mag-Lites®	143-144
Magnet	146, 255
Magnetic	
Alignment Gauges	215
Extensions	90
Fender Covers	127
Hex Bit Holder	19, 90
Pick-Up	145-146
Screwdrivers	90
Socket Holders	18-19
Sockets	28-29, 38, 46, 59
Tool Holders	16
Trays	16
Magnifier	145
Mallets	103
Manifold Gauges	193
Manuals	166, 184
Marking, Scribing & Scraping	103-106
Master Cylinder Bleeders	229-230
Master Sets & Tool Boxes	3-20
Master Sets	3-5
Mats	17, 20
Measuring Containers	206
Measuring Tools	128-131
Memor-eze	158
Metal Cutting Shears	264, 280-281
Metric	
Feeler Gauges	165
Hex Keys	79-82
Insert Bits	97-98
Taps & Dies	131-134
Wrenches & Sets	69-74, 76-79
Metric Sockets & Sets	
1/4" Drive	25-29
3/8" Drive	38-46
1/2" Drive	54-59
Micrometers	129-130
Micro Torch	305
MIG Welders	303-304
Mightyvac®	166
Mini-Ram	274
Mirrors	145
Miscellaneous Body Tools	287-288
Miscellaneous Equipment	307-308
Mitylite™ Pocketlight	142
MO-Clamps	275-276
Mobile Tool Box	16
Modules	
5-Gas	150
Ignition Tester	152
Scope	151
Thermocouple	155
Molding Tools	286, 309
Monitors	148-149
Monster Scrapers	105
Motorcycle Manual	166, 184
Motorcycle Tire Gauge	223
Muffler Cutters	236, 260-261
Multi-Pro™	264
Multimeters	152-155
Multimeter Test Clip & Leads	155-157, 161

N

NGT-ABS/Air Bag Kit	149
Nib File	283
Nibbler	250
Nipples/Couplers	257-259
Noid Lights	168

Non-contact Thermometers	198
Nut Cracker/Splitter	237
Nut Drivers	89
Nut Remover Set	134, 138

O

O-Rings (Impact Sockets)	63-64
OBD II Scan Tool	150-151
Offset Ratcheting Screwdriver	91
Oil & Lube	208-212
Adapters	211
Air Tool	252
Bearing Packer	212
Deflector Set	176
Dispenser	209
Drain, on wheels	209, 307
Drain Pan	206, 209, 225
Filter Pliers	209
Filter Wrenches	208
Funnel Buddy	210
Funnels	209-210
Grease Gun	210-211
Grease Gun Coupler	212
Grease Gun Hose	211
Pan Plug Wrench	208
Pistol Oilers	210
Pour Spouts	210
Pressure Tester	172-173
Recovery Pan	209
Sender Switch Socket	212
Torx Bit	211
Oil Injectors	190, 199
Oilers	210, 255
Open End Wrenches	74, 78
Orbital Sanders	246-247
Organizers, Tool	15-19
Organizers, Wrench	17
Orifice Tube Service	197
Overdriver®	90
Oxygen Sensor Socket	170, 182
Oxygen Sensor Thread Repair	134

P

Pads, Back Up	254
Pads, Sanding	254
Painting	289-291
Air Adjusting Valves	290
Air Brush Kits	291
Air Regulator	290
Air Water Separator	290
Cups	291
Heat Gun	290-291
Holders	290
Respirators	302
Spray Guns & Accessories	289-290
Panel Cutter	260, 281
Parts Box	16
Parts Cleaning Tool	297
Parts Trays	16
Parts Washing	297
Pedal Depressor	183, 235
Pen Lights	144
Personal Data Assistant (PDA)	150
Phillips® Bits	100
Phillips® Head Screwdrivers	88-89
Phillips® Head Screw Starters	90
Pick Up Tools	145-146
Picks (Body)	279
Picks & Hooks (Utility)	104
Pilot Drills	270
Pin Punches	84-85
Pin Punches, Brass	84-85
Pins, Locking (Impact Sockets)	63-64
Pinch Bars	86
Pinch Off Tool, Locking	118
Pipe End Shaper	237
Pipe Expanders	235-237
Pipe Taps	132
Pistol Oilers	210

Piston Hammer	102, 174
Piston Tools	174-175
Pit Boots	299
Pit Jack	295
Pitman Arm Pullers	215
Pivot Pin Remover	179
Plasma Arc Cutting	304
Plastic Parts Box	16
Plastic Work Cart	15
Plastic Riveter Kit	282
Pliers	106-122
Alligator	110
Axle Cone	224
Battery	187
Black Chrome	107
Brake Spring	234
CV Boot Clamp	226
Cable Cutter	107, 112
Cobra®	110
Compound Leverage	106
Convertible	119
Crimping	111-113
Cutters	111-114
Diagonal	106-107, 111
Electrical	112
Electronics	113-114
Emergency Brake	234
End	111
Flat Nose	114
Gripper	108
Hog Ring	120
Hole Punch	269
Horseshoe Snap Ring	119
Hose Cutter	112
Hose Clamp	121-122
Hub Cap	226
Ignition	113
Linemen's	107, 110
Locking	115-118, 281
Lock Ring	119-120, 214
Long Nose	106-107, 114
Long Reach	108, 111
Mighty Cutter	112
Mini	106
Mini LongReach	108
Multipurpose	107-108, 112
Needle Nose	108
Oil Filter	209
Parrot Nose	110, 187
Plugweld	306
Precision	106-107
Quarter Turn™	118
Radiator Cap	206
Retaining Ring	118-120, 214
Sets	106-108, 114-116, 118-120, 309
Slip Joint	106-108, 110, 209
Snap Ring	119-120, 213, 309
Soft Grip	116-118
Spark Plug	164
Stripper	112-113
Terminal Crimper	113
Tongue & Groove	106-109, 209
Trim Clip	286
V-Jaw	112
Vise-Grip®	114-118, 281
Wire Service	112-114
Wire Twister	114
Plug Service	164-165
Plug Starter	165
Pneumatic	257-261
Accessories	245, 256-257, 261
Adapter	183
Chisels	245, 259-261
Chisel Sets	245
Couplers	257-259
Pen	251
Pocket Knives	122-125
Pocket Scriber	104
Polisher	247, 263

Portable Fan	256
Portable Power Source	186
Portable Ram Kits	273
Portable Work Stand	288
Pour Spouts	210
Power Bit Set	91
Power Extensions	
1/4" Drive	31
3/8" Drive	49
1/2" Drive	61
Power/Ground Injector	160
Power/Ground Outlet	158
Power Inverters	265
Power Generator	186
Power Probes	160
Power-Pull Tool	274
Power Sockets & Sets	
1/4" Drive	24, 27-78
3/8" Drive	35-37, 42-44
1/2" Drive	51-53, 56-58
Power Steering Tools	178-179
POWER TOOLS	238-291
Power Universal Sockets	23-24, 28, 37, 44-46, 53-54, 58
Pozidriv Bits	100
Precision Screwdrivers	89
Pressure Blasters	296
Pressure Gauges (Tire)	221-223
Pressure Testers (Radiator)	201-204
ProVision	163
Pry Bars & Sets	86
Pull Rods	279
Pullers	176-180, 218-221
Axle	218-220
Bearings	220
Body	274-276
Bolt	219
Cotter Pin	221
Damper Puller Insert	219-220
Dent	276-277, 287
Flange Type	219-221
Harmonic Balancer	176-178
Hub	220-221
Hub-Rotor-Axle	220
Jaw	219-220
NAP™	276
Pitman Arm	215
Power Steering Pump	178-179
Pulley	177
Quarter	276
Seal	224
Sets	218-219, 221
Slide Hammer	218-219
Spindle	224
Steering Wheel	178-179, 221
Tie Rod	217
U-Joint	216
Pulley Tools	176-178, 205
Pulling & Straightening	273-276
Pump (Air Vacuum)	191-192
Punches, Chisels & Pry Bars	84-86
Punch & Chisel Sets	84-85
Punch, Bearing Race	85
Punch, Brass	84-85
Punch Holder	85
Punch/Flange Tool	250
Putty Knives	106

Q

Quarter Inch Hole Punch	269
Quarter Puller	276
Quick Change Filter	190
Quick Change Retainers	253
Quick Couplers	195-196, 257-259
Quick Fill (Radiator)	203
Quick-Grip® Spring Clamps	118
Quick Probe	161

Quick Spiff 297

R

Racks	18-19
Radiator Coolant Dye	199-200
Radiator Tools	199-206
Radio Removal Tool	288
Rails, Socket	18-19
Ram	274
Ram Kits	273
Ratchets	
1/4" Drive	29-30
3/8" Drive	46-48
1/2" Drive	59
3/4" Drive	63
1" Drive	64
Air	242-244
Flex Head	29, 46-48, 59
Headlight Adjusting	291
Industrial Finish	29, 47, 59, 63-64
Palm	30
Plastic Handle	29, 46-48, 59
Sets	29, 46-47
Ratchet Spinners	30, 48, 60
Ratcheting Box & Bit Set	90-91
Ratcheting Wrenches	
Box	76-78, 90-91, 197
Offset	91
Torque	82
Razor Blade Scrapers	105, 287
Reactionless Air Ratchet	244
Reamers	134
Recycle/Recover/Recharging	189-190
Reel	255
Reel Lights	139-140
Refrigerant Units	189-190
Refrigerant Tank Conversion Kit	255
Regulator (Air Line)	255
Remote Starter Switches	163
Removinator™	190
Respirators	302
Retainers, Air Tool	252-253
Retaining Ring Pliers	118-120, 214
Retaining Ring Repl. Tips	119
Retaining Ring Socket	101
Rethreading	131-135
Spark Plug Tap	132, 165
Spindle & Axle Die Set	134
Tap & Die Sets	131-134
Sets	131-134
Retrieval Tools	146
Retrofit Adapter Kit	190
Rim Straightening Tool	228
Ring Compressors	174
Ring Groove Cleaner	175
Rivet Tools	282
Rocker Arm Oil Deflector Set	176
Roll Pin Punches	84
Roller Tool Cabinets	7, 9, 11, 13-14
Rollerdriver®	90
Rotabroach®	269
Round Nose Cape Chisel	84-85
Rubber Mallets	103
Rules	130-131

S

Safety Equipment	298-302
Aprons	298
Air Respirators	302
Boots	299
Disposable Gloves	298
Gloves	298-299, 306
Goggles & Glasses	299-300, 302
Hearing Protector	302
Heat Sleeves	298
Helmets	301
Latex Gloves	298
Shoes	299
Sleeves	298

Sandblasting	296
Benchtop Blast Cabinet	296
Bucket Blaster	296
Hot Spot Blaster	296
Portable	296
Pressure	296
Speed Blaster	296
Sanders, Air	245-247
Sanding & Filing	126, 254, 282-283
Blocks	283
Discs	254
Hand	126, 282-283
Pads	254
Power	245-247, 263
Saws	
Hand	122
Hole	270
Power	250, 264
Scan Tools	148-152
Scrapers, Hand	105-106, 287
Scratch Awls	104
Screwdrivers	88-101
Bit Driver	89
Bits	90
Bit Sets	90
Cabinet	88
Flat Tip	88-89
Gearless	91
Heavy Duty	89
Holder	15
Magnetic	90
Nut Drivers	89
Overdriver®	90
Precision	89
Phillips®	88-89
Ratcheting	90
Rollerdriver®	90
Sets	88-89
Skewdriver®	90
Slotted	88
TamperTorx	88-89
Torx®	88
Wheel Well Molding	287
Screw Extractors & Sets	136-139
Screw Pitch Gauge	135
Screw Starters	90
Scribers	104
Seal Driver Kit	224
Seal Pullers	224
Sensor Tester	152
Serpentine Belt Tool	180-181
Service Carts	15
Service Couplers, A/C	195-196
Service Jacks	293-295
Sharpeners (Drill)	265
Sharpening Stones	126
Shears	
Electric	264
Hand	280-281
Sheet Metal Hooks Set	275
Shelves, Accessory	15
Shock Absorber Tool	217
Shoes	299

SHOP EQUIPMENT 292-308

Bench Tools and Accessories	302-303
Hand Cleaner	306
Lifting	293-295
Parts Washing and Brushes	297
Safety Equipment	298-302
Sandblasting	296
Welding and Soldering	303-306
Shot Dolly	280
Side Cabinets	7, 9, 13-14
Skewdriver®	90
Sledge Hammers	102-103
Slide Hammers	218-219
Smart Gauge	201
Snap Ring Tools	118-120, 213, 309
Snips	280-281

Socket Adapter Sets	60
Socket Holders	17-19
Socket Holders, Bit Type	19, 101
Socket Organizers	17-19
Socket Racks	18
Socket Rails	18
Socket Trays	17-19
Sockets & Sets	
Chrome (Metric)	
1/4" Drive	25-26
3/8" Drive	38-40
1/2" Drive	54-56
Chrome (SAE)	
1/4" Drive	22-23
3/8" Drive	32-33
1/2" Drive	50-51
Impact (SAE)	
3/4" Drive	62-63
Magnetic (Metric)	
1/4" Drive	28
3/8" Drive	46
Magnetic (SAE)	
1/4" Drive	28
3/8" Drive	38
Magnetic Self Tapping Screw (Metric)	
1/4" Drive	29
3/8" Drive	46
Magnetic Spring Loaded (Metric)	
1/4" Drive	29
3/8" Drive	38
1/2" Drive	59
Magnetic Spring Loaded (SAE)	
1/4" Drive	29
3/8" Drive	38
Power Impact (Metric)	
1/4" Drive	27-28
3/8" Drive	42-44
1/2" Drive	56-58
Power Impact (SAE)	
1/4" Drive	24
3/8" Drive	35-37
1/2" Drive	51-53
Thinwall (SAE)	
3/4" Drive	62
Universal (Metric)	
1/4" Drive	26-27
3/8" Drive	41
Universal (SAE)	
1/4" Drive	23
3/8" Drive	33-34
Universal Power (Metric)	
1/4" Drive	28
3/8" Drive	44-46
1/2" Drive	58
Universal Power (SAE)	
1/4" Drive	23-24
3/8" Drive	37
1/2" Drive	53-54
Sockets	
ABS Pressure Switch	231
A/C Service Port	196
Adapter Set	60
Antenna Nut	287
Axle Nut	227-228
Ball Joint	215
Banjo Bolt Fuel Filter	170
Bit	98-99
Brake	53
Budd Wheel	63, 226-227
Carburetor	170
Crankshaft Turning	175
Die	139
Drain Plug	51
Drag Link	48, 64
Ford TFI Module	163
GM-Seat Rail	237
Jacobs Brake	53, 231
Lock	228
Locknut	224-225

Lug Nut	59, 207-227
Octagon	196
Oil Sending	212
Oxygen Sensor	170, 182
Petcock	206
Retaining Ring	101
Seat Rail	237
Spark Plug	34, 164
Spindle Nut	227
Stop Light Switch	212
Strut	217
Surface Drive	53
Tap	139
Thinwall	62
Tie Rod	216
Twist	136
Weatherhead	34
Wheel Nut	59, 225, 227
Window Glass	286
Wing Nut	287
Vacuum Switch	182
Socket System (3-in-1)	186
Sockets (Handles & Attachments)	
1/4" Drive	30-31
3/8" Drive	48-49
1/2" Drive	60-61
3/4" Drive	63-64
1" Drive	64
Software, Diagnostic	149-150
Soldering Tools	305
Spanner Wrench	181, 224
Spark Plug	
Boot Puller	164
Cleaner	165
Gappers	165
Gauge	165
Rethreaders	165
Sockets	34, 164
Taps	132, 165
Terminal Pliers	164
Wire Puller	164
Spark Tester	161
Speed Blaster	296
Speed Files	282-283
Speed Handles (Speeder)	
1/4" Drive	30
3/8" Drive	48
Speeder	30, 48
Spin Handles (Flexible)	30
Spin Handles (Rigid)	30, 48
Spinner, Ratchet	30, 48, 60
Split Beam Click Wrenches	83
Spoolgun	304
Spoons (Body)	288
Spotgun® Leak Detection	199-200
Spotlight	144
Spotweld Cutter	269
Spotweld Drill	269
Spray Guns	256, 289-290
Accessories	289-290
Air Adjusting Valves	290
Gravity Feed	289
Holders	290
HVLP	289
Regulator	290
Suction Feed	289
Touch Up	289
Spray Gun Cleaning Kit	290
Sprayer	252
Spring Compressors	175, 215, 217-218
Stamps, Figure & Letter	103
Stand, Tripod	295
Stand, Work	128
Starter Current Indicator	158
Starter Punches	84-85
Starter Switches	163
Steering Pump Puller	178-179
Steering Wheel Tools	178-179, 201
Step Drills	268-269

Stethoscope	162
Sticker Scraper	105
Storage Lockers	6, 8, 11-12
Straight Edge	130
Straight Line Sanders	246-247
Strap Wrench	78
Striking Tools	84-86
Stripe Stripper	254
Strut Spring Compressor	217-218
Strut Tool Kit	309
StrutTamer™ & Stand	218
Stud Installer Kits	226
Stud Removers	134-135
Stud Welder	277
Suction Cups	287
Suction Gun	211
Superdashlight™	141
Surface Preparation	254
Sure Shot® Sprayer	252

T

T-Handle Wrenches	81, 134
Tachometer	154, 162
Tailpipe Tools	235-237, 259-261
Tamperproof Bits	99-100
TamperTorx Screwdrivers	88-89
Tank Conversion Kit	255
Taper Punch, Brass	85
Tapes (Measuring)	131
Tappet Removers	176
Taps	131-133, 165
Taps and Dies	131-134
Tap Socket Set	139
Tap Wrenches	134-135
TDC Whistle	173
Tech/Dat	152
Tech/Force	148-149
Tech-Mate	150
Tech/Trace	150
Terminal Cleaners	162, 187
Terminal Crimper	113
Terminal Installer	113
Test Leads	155-157, 160-161
Thermocouple Module	155
Thermometer	197-198
Threading	131-134
Files	134
Gauges	135
Restorers	131-134
Setter Kit	282
Tie Rod Tools	216-217
Timing Manuals	184
Timing Belt Tension Tool	180-181
Timing Lights	159
Tinners Snips	280
Tire & Wheel	221-229
Changer	229
Chucks	223
Digital Pressure Gauge	221-222
Gauge	221-223, 231
Seal Tools	224
Sockets	224-225, 227
Torque Master Kits	228
Tread Gauge	223, 231
Valve Tool	223-224
Titanium Drill Bits	268-269
Titanium 'N Torque Impact Wrench	241
T.O.M.C.A.T.	216
Toe Gauge	215
Tongue and Groove Pliers	106-109
Tool Boxes	6-14
80"	6-7
60"	8-9
58"	10-11
42"	12-13
29"	14
Accessories	15-20
Accessory Drawers	15
Accessory Shelves	15

Accessory Trays	16-19
Cabinets	7, 9, 11, 13-14
80"	7
60"	9
58"	11
42"	13
29"	14
Cabinet Mat/Pad	17, 20
Canopies	6, 8, 11
80"	6
60"	8
58"	11
Cantilever	16
Carts	15
Chests	7, 9
80"	7
60"	9
42"	13
29"	14
Covers	20
Drawer Liners	17, 20
Drawers, Add-On	15
Hand Carry	16
Horizontal Lockers	6, 8, 11
Lockers	6, 8, 11, 13
Horizontal	6, 8, 11
40"	6
58"	11
60"	8
Storage	8, 13
Magnetic Tool Trays	16
Mats	17
Mobile	16
Paint	20
Parts	20
Parts Box	16
Parts Tray	16
Service Carts	15
Side Cabinets	7, 9, 13-14
Sliding Tray	15
Socket Storage	17-19
Storage Lockers	8, 13
Utility Boxes	16
Wrench Organizers	17
Writing Insert	15
Tool Holders	15-19
Tool Tray	16
Top Chests	7, 9, 13-14
Torch Lighter	306
Torch	305
Torque Angle Meter	82
Torque Kits	228
Torque Wrenches	82-83
Adjustable	82-83
Dial	82-83
Flex Head	82-83
Split-Beam	83
Micrometer	83
Torx®	
E4 Deep Recess Tool	171
Bit	171
Bit Sets	95-96
Box Wrenches	73, 214
Drivers	95-96, 99-100
Ford Truck Bit	171
Insert Bits	99-100
Inverted	99
Key Set	81-82
Oil Pan Bit	211
Screwdrivers	88-89
Tamperproof	96, 99-100
Toyodenso (TEC) Coil Adapter	157
Tracer Stick® Conversion	199
TracerEAR™	162
Tram Gauge	288
Transmission	212-215
Alignment	214
Ball Joint Tools	214-215
Clutch	212-215

Cooler Line Plugs	213
Compressor	215
Disconnect Tools	170, 213-214
Funnel	209
Pliers	213-214
Plugs	213
Pressure Tester	172
Seal Tools	212
Stop-Off Tool	213
Wrenches	214
Transmission Jack	294
Trays, Magnetic	16-19
Tread Depth Gauge	223, 231
Triple Square Bit Set	99
Tripod Stand	295
Trouble Light	139
Tube Bender	236
Tube Cutter	236
Tube Grip®	122
Tubing	235-237
Turbo™ Impact Wrench	241
Twist Sockets	136

U

UV Glasses	200
UV Leak Detection	199-201
UNDERCARRIAGE & WHEEL	207-237
Underhoist Stand	295
Underhood	165-187
Unibits®	268-269
Universal Joint Kit	216
Universal Joints	
1/4" Drive	31
3/8" Drive	48
1/2" Drive	60
Universal Joints (Power)	
1/4" Drive	28
3/8" Drive	38
1/2" Drive	54
Universal Power Socket	
Metric	28, 44-46, 58
SAE	23-24, 37, 53-54
Universal Socket Holder	18
Universal Sockets	
Metric	26-27, 41
SAE	23, 33-34
Universal Spark Plug Sockets	34, 164
Upholsterer's Tool	285-286
Utility Carts	15
Utility Knives	122, 125
Utility Packing Hook	104
Utility Tool Boxes	16

V

V-Belt Installer	182
Vacuum	
Brake Bleeder	166
Plugs	167
Pump	191-192
Quick Spiff	297
Suction Disc	287
Switch Socket	182
Testers	166-167
Valve	175-176, 195-196
A/C Shut-Off	195
Core Tools	191, 196
Lappers	175
Spring Compressors	175
Tappet Removers	176
Tools (Tire)	223-224
Vehicle Stands	293
Versa Tach	154
Vise	302
Vise-Grip®	114-118, 281
Bent Nose	116
Chain Clamp	117
Clamps	114, 281
Curved Jaw	117
Large Jaw	117-118

Locking Wrenches	115, 118
Locking Pliers	115-118, 281
Long Nose	117-118
Pinch-Off Tool	118
Sets	114-116
Soft Grip	116-118
Springs	117, 281
Straight Jaw	117
Vise Jaw Pads	302
VisorNeo™ PDA	150

W

Water Pump Tool	182
Weather Stripping Tool	286
Weatherhead Socket Set	34
Weld Cutters	259, 269
Welders	303-304
Welding & Soldering	303-306
Airless Plastic	304
Bench	288
Blanket	305-306
Gloves	306
Goggles	302
Hammer	103, 306
Helmets	301
MIG	303-304
Plasma	304
Stud	277
Tip Cleaner	306
Torch	306
Wheel	
Aligning	215-218
Balancer	228
Bearing Packer	212
CV Joint Tools	226
Dresser (Grinding)	303
Grinding	303
Hubcap Remover	226, 228
Lock Nut Tools	224-225
Lock Plate Tool	179, 201
Lug Sockets	224-225, 227
Rear Toe Adjuster	227
Torque Kits	228
Truck Stud Installer	227
Wheelsaver®	228
Weight Tool	221
Wheel Balancer	228
Wheel, Cut-Off	249-250
Wheel Dolly Set	295
Wheelsaver®	228
Window Holders	287
Windshield Tools	286-287
Windshield Wire	286
Wiper Arm Remover	187, 287
Wire	
Brush	270-271, 297
Crimper	111-113
Cutter	111-114
Stripper	112-113
Twister	114
Wheel Brushes	303
Wire Insertion Tool	113
Wire Piercing Sets	156-157
Worldwind Fan	256
Work Cart	15
Work Stand	128, 288
Wrench Holders	17
WRENCHES (SAE & Metric)	65-86
Wrenches & Sets	66-82
Adjustable	78
Air	239-242
Allen	79-82
Angle	74
Antenna Nut	287
Ball Joint	217
Balldriver®	80
Battery	187
Bit	91
Box	72-73, 76-79, 197

Brake	231
Brake Bleeder	231
Bushing	216
Carburetor	171
Cordless	263
Combination	66-72, 75-78
Combination, Box	76-78
Combination, Extra Long	67, 69
Combination, Extra Short	68, 71-72
Combination, Flare Nut	75
Combination, Flex Head	67, 78
Combination, Full Polish	66-72, 75-76
Combination, Industrial Finish	66-72, 75-76
Combination, Metric	69-72, 78
Combination, SAE	66-68
Combination, Short	70-71
Crowfoot-Flare Nut	34-35, 41-42
Crowfoot-Open End	34-35
Dial Torque	82-83
Distributor	173-174
Double-End Flare Nut	75-76
Fan Clutch	204-206
Flare Nut	34-35, 41-42, 75-76
Flex Head	67
Flex Plate	182
Flex Ratcheting	78
Fold-Up Hex Key	81-82
Ford Fan Clutch	204-205
Ford Ignition Module	163
Fuel Inlet	170
Half Moon	79
Harley Davidson	184
Hex Key	79-82
High Performance	73
Holders	17
Locking	115, 118
Offset Ratcheting	91
Oil Filter	208
Oil Pan Plug	208
Open End	74, 78
Organizer	17
Oxygen Sensor	170
Powerbar	309
Ratcheting Box	76-78, 91, 197
Ratcheting Box (Air Cond.)	197
Ratcheting, Open End	78
Ratcheting Tap	135
Ratcheting, Torque	82
Rear Toe Adjustment	216
Serpentine Belt	181
Spanner	181, 217, 224
Spline	184
Split Beam Click	83
Strap	78
T-Handle	81, 134
Tap	134-135
Timing Belt	181
Torque	82-83
Torx® Box	73, 214
Torx® Fold-Up Hex Key	81-82
Water Pump	182, 205
Wheel Torque	228
Wrenches (Air)	239-242, 261
Wrenches (Electric)	242, 263
Writing Insert	15

Y

Yoke, Axle	220
------------------	-----

Z

Zip Gun®	245
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